

SCHOOL EFFECTIVENESS AND LEARNER ACHIEVEMENT

A BASELINE ASSESSMENT STUDY OF PRIMARY SCHOOLS IN ORISSA

Project Director

K K Das

Writers

S L Jena

M M Mohanty

Programme ^CCoordinator

B C Mohapatra

Associates

B K. Patnaik

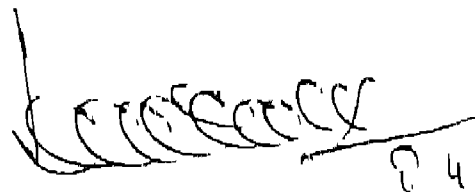
U N Praharaj

**Directorate of Teacher Education
and State Council of Educational Research and Training,
DEPARTMENT OF SCHOOL AND MASS EDUCATION,
GOVERNMENT OF ORISSA, BHUBANESWAR
1996**

FOREWORD

The focus of the Baseline Assessment Study, conducted by the Directorate of Teacher Education and SCERT, Bhubaneswar, is on the existing state and status of primary schools and levels of learner achievement in the five DPEP districts of Orissa : Balangir, Dhenkanal, Gajapati, Kalahandi, and Rayagada. The study covers a wide spectrum of static and dynamic variables that have tremendous bearing on school effectiveness and learner achievement. The findings of this study will provide the basis for planning DPEP interventions.

I am sure the strategies that would be adopted will be realistic and pragmatic and will lead to realising the holistic concept of universalisation of elementary education.

A handwritten signature in dark ink, appearing to read 'D. N. Padhi', with a horizontal line extending to the right. To the right of the signature, the date '24.9.76' is handwritten.

(D. N. Padhi)
Commissioner-cum-Secretary
Department of School and
Mass Education
Government of Orissa

ACRONYMS

BAS	-	Baseline Assessment Study
BEO	-	Block Education Officer
CRC	-	Cluster Resource Centre
DIET	-	District Institute of Education and Training
DPEP	-	District Primary Education Programme
EFA	-	Education For All
GOI	-	Government of India
MHRD	-	Ministry of Human Resource Development
MLL	-	Minimum Levels of Learning
NCERT	-	National Council of Educational Research and Training
NFE	-	Non-Formal Education
NPE	-	National Policy on Education
OBC	-	Other Backward Caste
POA	-	Programme of Action
SC	-	Scheduled Caste
SCERT	-	State Council of Educational Research and Training
ST	-	Scheduled Tribe
UEE	-	Universalisation of Elementary Education
UPE	-	Universalisation of Primary Education

C O N T E N T S

	Page
Chapter I	Introduction
	1
	Towards Universalization of Elementary Education
	Quantity, Quality and Equity
	The Problem
	Method
Chapter II	The Setting
	48
	Development of Primary Education in Orissa
	The Project Districts
Chapter III	Major Findings
	65
	Schools : Infrastructure and Management
	Teachers and Teaching Learning Process
	Dropouts : Characteristics and Achievement
	Achievement of class 2 students
	Class 5 Students : Characteristics and Learning Achievement
Chapter IV	Implications for DPEP Intervention
	209
References	215
Appendices	206
	Appendix I : Project Team for Data Collection.
	Appendix II :List of Sample Schools

CHAPTER I

INTRODUCTION

- ◆ TOWARDS UNIVERSALIZATION OF
ELEMENTARY EDUCATION
- ◆ QUANTITY, QUALITY AND EQUITY
- ◆ THE PROBLEM
- ◆ METHOD

CHAPTER I

INTRODUCTION

1.1 Towards Universalisation of Elementary Education

The developing countries, almost without exception, mounted concerted efforts to expand their education systems during the post-War period. By prodigious efforts, they negotiated giant movements in the direction of broadened educational opportunities (Coombs, 1985). The availability of primary education has expanded on a scale that is remarkable by any standard and reflects the strong determination of the developing countries to provide their populations with universal access to schooling (Lockheed and Verspoor, 1991), necessitated by a number of historic reasons : first, the "mounting educational aspirations of parents and their children"; second, the new stress of public policy everywhere on development of education largely inspired and induced by the theory of "human capital formation"; third, a parallel stress in newly liberated countries on the democratic imperative of increasing educational participation rates; and fourth, population explosion which acts as a quantitative multiplier of the social demand for education. Faced with two equally competing compulsions, namely, to develop and design a homegrown model of education to suit their specific needs and circumstances on one hand, and to expand the imported system, hoping in the due course to reorient them to their country specific circumstances, in response to surge in social demand for education, on the other, their choice for the former arguably took precedence over the latter. Like all other developing countries, India preferred to cling to the policy of rapid expansion of its primary system. The buoyancy for expanding primary school opportunities was so strong that relatively realistic proposal of

the Post-War Plan of Educational Development (1944) to universalize elementary education for all children in the age-group 6-14 in a phased programme spread over 40 years (1944-84) was set aside by the Special Committee constituted under the chairmanship of Shri B.G.Kher on the ground of "too long a period" and 1960 was accepted as the time frame to reach the goal (Naik,1975). This recommendation was accepted and incorporated in Article 45 of the Directive Principles of State Policy which laid down that : "the State shall endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years." (Constitution of India,1950).

This constitutional mandate and the ambience created by a host of developments with rich promises and prospects during 1980s and first half of 1990s have inevitably led to a spectacular 'simplistic' linear expansion of primary education in India during the post-independence period. To mention a few notable developments, both at the national and international levels, that have placed elementary education as "priority of priorities" in the national agenda are : the adoption of National Policy on Education and Programme of Action (1986, later updated in 1992), the World Declaration on Education For All (1990), the Delhi Declaration (1993), the Convention on the Rights of the Child (1989), the 73rd and 74th amendment to the Indian Constitution, launching of Total Literacy Campaigns, etc. All these developments have far-reaching impact on India's endeavour towards universalisation of elementary education (UEE). Under their salutary impact, the scale and pace of UEE have assumed, over last one and half a decade, impressive proportions. There has been a very significant increase in the number and spread of institutions as well as enrolment. The elementary education system of India has expanded to be one of the largest in the world. In spite of

tremendous expansion of primary education in the country in terms of universal access and provision, the composite concept of UEE still remains an elusive goal and much ground is yet to be covered (POA,1992). Broadening the concept of UEE, the NPE (1992) accorded unqualified priority to three mutually reinforcing aspects :(i)universal access and enrolment, (ii) universal retention of children upto 14 years of age, and (iii) a substantial improvement in the quality of education to enable all children to achieve essential levels of learning. In view of this composite perspective of UEE, with exclusion of provision of access, India's achievements in promoting basic education since independence are considered quite limited by international standards (Dreze and Sen,1995). The Committee for Review of National Policy on Education,1990 observed that "the continued failure since independence to fulfil the constitutional directive of providing education to all children upto the age of 14 years is a teasing reality." (P.134)

1.2 Quantity,Quality and Equity

Primary education in India has expanded remarkably in the post-independence period. At present more than 95 percent of rural population has a primary school within a walking distance of one kilometer (NCERT,1995). The number of primary schools increased from 209.7 thousand in 1950-51 to 577 in 1990-91. The gross enrolment ratio (GER) at the primary level increased from 42.6 percent in 1950-51 to 102.7 percent in 1991-92. Enrolment in primary classes increased from 19.5 million in 1950-51 to around 101.6 million in 1991-92 (Department of Education, 1993). In addition to this, there are around 277 thousand non-formal education centres with an enrolment of around 6.8 million children. During the period 1950-51 to 1991-92, the sheer size of the teaching force has experienced a substantial bulge. The transition rates reveal that the population of children moving up from primary to upper

primary stage has been steadily increasing : from 16.3 percent in 1950-51 to 33.9 percent in 1990-91. Another welcome indicator of quantitative expansion is a sharp decline in the absolute and relative size of non-participants (Department of Education, 1993). On the whole, at an aggregative level the quantitative growth of Indian primary education system in terms of provision of schooling facilities, has been impressive.

Aggregative figures mask gender, caste and location specific disparities that are woefully glaring. Despite tremendous strides in expanding primary education during the last couple of decades, India is still a long way from achieving the goals of UEE. A few of the visible inadequacies and inconsistencies in India's programme for UEE are :

- In spite of the pronounced increase in the GER, the number of children outside the elementary school system is still 19.18 million as compared to 49.18 million in 1951. Improvements in GER do not automatically benefit the disadvantaged groups. Therefore, a sizeable segment of the non-enrolled is represented by school-age children from the disadvantaged groups, namely, SCs, STs, girls, and the economically deprived. The problem of non-participation of children of 6 to 11 years old will be further exacerbated due primarily to two inevitable positions : first burgeoning child population which is disproportionately large in view of momentum of population growth, and second, challenge of creating extra school places in the face of severe financial crunch.
- The incidence of high dropout rate at the primary and upper primary stages is indicative of the low internal efficiency that afflicts the system. Notwithstanding widely varying dropout statistics,

drawn from official and non-official sources, the incidence tends to erode the gains in enrolment. The findings of the forty-second National Sample Survey (July, 1986 - June,1987), tacitly bring out a stark, however unrelishable, truth that a little over one-fourth of all dropouts in rural as well as urban India reported that they are "not interested in education". A recent Unicef document puts primary school dropout rate at 38 percent (Unicef,1995). The disaggregated dropout rates show that incidence of dropout at class I - V level is the highest for Scheduled Tribe (64.5%), followed by Scheduled Castes (49.6%) and general castes (49.93%). The dropout rates in case of girls is consistently high across all caste groups. This incidence of non-completion is cognitively unproductive, economically wasteful and costly, and socially unjust and inequitous. Low levels of basic education in India reflect both (a) the low duration of schooling for children who are enrolled at some stage, (b) the fact that a large proportion of children are never enrolled at all (Dreze and Sen, 1995).

1.2.1 The Quality Issue

While quantitative expansion is inevitable and desirable, it has given rise to two sets of problems- one related to poor and uneven quality and another of equity. The concept of quality is widely used in education, but often with different meanings. Therefore, it is really difficult to search for a consensus among educationists as to what constitutes quality in primary education. Broadly, the term quality is used to refer to : (i) Characteristics of the factors that go into the education process,(ii)aspects of the process itself, or (iii) outcomes of the process.

Differing views on the components of quality of education could mainly be clustered under three groups of correlates, namely, (i) the level of material and human

inputs or the characteristics of factors that go into the education process, (ii) the process itself- i.e, actions involved in school functioning, and (iii) the outcome of the process i.e, learner achievement in terms of their performance capabilities. The nature and extent of interaction between the first two i.e., the inputs and process influence the third, namely, learner achievement (Govinda and Varghese, 1992). The quality of a school or an educational system should, in real sense, be judged in terms of learner achievement, namely, how much and how well the students have acquired the intended curriculum inputs (Dave,1991). With this framework of the concept of quality of education, it would be worth examining the quality of primary schools in India in its pursuit of UEE.

- In the baseline assessment studies conducted in various states, It has been found that the achievement levels are very low. Most of the students were scoring around 40 percent in most of the subjects. Only 30 percent of the students were mastering the desired competencies. In effect, the majority of the students do not learn at the desired level of competence rendering learning fragile and unsustainable. The entire system with poor quality is, therefore, rendered inefficient (Dave,1995). The optimism on account of the expansion of the system diminishes progressively as one moves from enrolment to retention and further to levels of learner achievement at the primary stage. Recent studies on primary education unequivocally reveal a rather low level learners' performance (Bashin et. al,1993; Dave et. al. 1988; Govinda and Varghese,1993; Jangira 1994; Shukla,1994; Varghese,1994). Decrying the load of incomprehension, Prof. Yash Pal observed that "a lot is taught, but little is learnt or understood" (P.4). The average performance level of the children in grade 5 is barely equivalent to the competencies expected to be achieved at the end of grade 2. Widespread complaint about the

declining norms and performance of the formal system of education is very common in India (Yash Pal, 1993).

- In terms of physical and academic infrastructure available in Indian primary schools as correlates of learner achievement, the situation is dismal and discouraging. Inadequate infrastructural inputs are indicative of the poverty of our primary schools as well as the poverty of learners' achievement. Even though the situation has improved over the years, in 1986, 13.54 percent of primary schools did not have any building, 29 percent of the schools had only one teacher, 0.42 percent of schools had no teacher and 14 percent teachers did not have any professional training.
- Notwithstanding the impressive progress in respect of spatial spread and number of primary schools, the costly phenomenon of dropout and absenteeism, low level of retention and completion rates, and wastage are considerable. It is implicitly evident that serious deficiencies on the supply side of education cripple the system. In terms of internal efficiency and external productivity, the system is operating at a very low level.

1.2.2. UEE - The Equity Issue

Concomitant to the poor quality in terms of infrastructure and teaching learning process, is the wide variation in quality leading to inequitous situation. Inequity exists in all three aspects of UEE : access, retention and achievement. Equity in access is only one aspect of educational equity, which also includes equity in process and in outcome (Campbell and Klein, 1982). The National Policy on Education and the Programme of Action (1992) have underlined this dimension of educational development in India. Therefore, the focus is perceptibly shifting from equity in access to equity in retention, and equity in achievement.

The following scenarios, purposively selective, are symptomatic of the educational inequity that exists in different forms. The most obvious of these are : geographic disparities (location), disparities between the sexes, and disparities in socio-economic status. Such inequitous situation is a world-wide phenomenon, not the monopoly of developing countries including India, though the scale of inequity in developing countries is alarmingly perturbing (Coombs, 1985).

- Reckoned against any educational indicator, gender disparities are conspicuous in regard to enrolment, retention and achievement. Though enrolment of girls has experienced almost a eight-fold rise over the period 1950-51 to 1991-92, girls account for only 45.7 percent of the enrolment at the primary stage and a little more than one-third at the upper primary stage. More number of girls prematurely leave school before completing the five-year cycle of primary education. Differences in the achievement of boys and girls become more pronounced at higher levels; disparities exist, however, even at the primary level (Govinda and Varghese, 1993; Lockheed and Verspoor, 1991). These overall national averages mask, however, serious gender disparities among states and among disadvantaged social groups within states. This gender disparity is further accentuated if one views the rural population separately. This inequitous situation stems from the deep-rooted gender apartheid, conservatism of social attitudes and parental inertia. A similar pattern of disparity exists with regard to enrolment, retention and achievement of learners from the disadvantaged groups such as SCs and STs.

In part, the problem is the exclusion of so many children by barriers of language, tribe, caste, religion, culture, economic class, or geographic inaccessibility.

The traditional response - expanding existing educational systems - fails to recognise that these groups are precisely those who find such existing education systems unsuitable for their needs, their circumstances, their aspirations, and their difficulties. The problem of reaching the unreached will, therefore, not to be solved by more of the same (Unicef,1995).

1.2.3. Concern for Quality

Low retention rates and poor achievement levels of learners are a major cause of concern. Universalization of access, retention and achievement have been viewed as joint and inseparable concerns (Framework for EFA Action, 1990). This concern is, in a way, an endorsement of NPE and POA (1992)'s overriding priority accorded to the extended concept of UEE which combines access, retention and quality (NPE, 1986). This concern has been expressed, in no uncertain terms, in the form of a "resolve".

"It shall be ensured that free and compulsory education of satisfactory quality is provided to all children upto 14 years of age before we enter the twenty-first century" (NPE,1986 P.20).

Concern for improving the quality of basic (primary) education is based primarily on two predominant premises : first, it is at the primary level where children develop their basic attitudes and approaches to learning; and second, it is a pre-requisite for developing demands of time and circumstances. The concern have been expressed in a number of national and international educational policy documents :

- The International Commission on Development of Education (1972) laid stress on both quantitative and qualitative dimensions of education which recommended for "more than before", "better than before", and different than before" education.

The later two expressions reflect an urge and intent for quality improvement.

- The need to lay down Minimum Levels of Learning (MLL) emerges from the basic concern that irrespective of caste, creed, location, or sex, all children must be given access to education of a comparable standard (POA,1992).
- "For basic education to be equitable, all children, youth and adults must be given the opportunity to achieve and maintain an acceptable level of learning The focus of basic education must, therefore, be on actual learning acquisition and outcome, rather than exclusively upon enrolment, continued participation ... and completion of certification requirements".(World Declaration on Education For All, 1990, p.5)
- Recognising that children who complete the primary cycle do not always master essential learning and life skills, the Delhi Declaration (1993) affirmed that they will improve the quality and relevance of basic education programme"

It was the National Policy on Education (1986) that kept the issue of UEE in focus and initiated significant changes in our endeavour towards achieving UEE. It was, however, felt that investments to improve quality of education is more equity-oriented than investments to improve access and retention. With this realization from the mid-eighties onwards, what has happened in India precisely is a shift in emphasis from equity in access to equity in achievement (Varghese, 1995). The issue of quality being at the centrestage four major quality initiatives that were launched after 1986 are :

- (i) the Operation Blackboard (OB) scheme which intended to create visible improvements in existing infrastructural facilities with an explicit intent to enhance

the quality of teaching-learning process;

- (ii) defining the Minimum Levels of Learning (MLL) to be achieved practically almost by all primary school children with emphasis on twin issues of quality and equity;
- (iii) establishment of District Institutes of Education and Training (DIETs) to improve teacher competency and teaching-learning process through strengthening the inservice component of teacher training; and
- (iv) decentralization of educational planning and management to make educational planning bottom-up rather than top-down, need-based, target oriented, and participatory. These policy initiatives have, during the recent years, demonstrated perceptible improvements in the quality dimensions of primary education in the country. Prioritising investment decisions and intervention strategies to promote quality in primary education requires an information base regarding variables, both "within-school" and "outside-school" that influence school quality and learner achievement. Research studies done in the area at the national and international level provide extensive and varied empirical evidence on correlates of school effectiveness and learner achievement.

1.2.4. Empirical Base of School Quality and Learner Achievement

Over the years, a considerable amount of research evidence has been generated on school quality, measured mainly in terms of levels of learner achievement, and their correlates (Varghese, 1994). From the wavelength of studies conducted in the area, the factors influencing learner achievement can broadly be clustered under three groups : (i) family/home background factors; (ii) school related factors; and (iii) individual related factors

(Buch and Buch,1982; Downey et.al,1993; Fuller,1986 and 1990;World Bank,1991). A brief but comprehensive presentation of major findings of studies conducted on these i.e., correlates of school quality and learner attainment will afford us invaluable insights into factors that really affect the quality of learner achievement. An attempt has, therefore, been made to scan across studies, conducted in India and abroad, and pull together the findings under two broad groups "outside school" factors, and "within school" factors.

1.2.5. Outside school factors

Outside school factors include a broad range of variables such as socio-economic background of families the learners come from, home support system, educational policy decisions, locus of decision-making in the family, prior learning experience, the health and nutritional status of the children, etc.

Many of the major studies of the sixties like the Coleman Report (Coleman et.al,1977) in the United States and the Plowden Report (1976) in the United Kingdom revealed that neither schools nor the human and material resources in them make a difference in learners' academic achievement. The only factors that accounted for variations in test scores were family, socio-economic status, and the learners' locus of control. Heyman and Loxley (1983) observed that home background factors are more important and reliable in predicting learners achievement in the developed world, not in the developing countries. Among the various family background characteristics the studies examined, parents' social class, education and occupation and family environment are found to be significantly correlated with academic achievement (Govinda and Varghese, 1993). Data from the Philippines indicate that the occupational and educational level of the parents has shaped the school attainment of their children, with the same level

of magnitude, since the early twentieth century (Smith and Cheung, 1986).

Several studies have explored the relationship between children's nutritional status and school indicators such as age at enrolment, grade attainment, absenteeism, achievement test scores, general intelligence and performance at selected cognitive tasks, including concentration in the classroom. All nine studies reviewed by Pollitt (1990) reported a significant relationship between protein-energy nutritional status and cognitive test scores or school performance in China, Guatemala, India, Kenya, Nepal, the Philippines, and Thailand.

Pre-school experience has a modest but positive influence on initial adjustment to the demands of primary school in developing countries (Halpern and Myers, 1985). The scattered studies from other developing countries confirm this picture (Kagiticibas1,1983). Pre-school education seems to give an initial advantage to learners as they are likely to have already acquired some literacy and numeracy skills (Govinda and Varghese, 1993).

1.2.5. "Within-school" Factors

"Within school" variables that affect school quality and student learning cover a broad range of factors : inputs and resources, and process variables. Contrary to the findings of Coleman (1996)'s earlier study that relied on static variables and between school differences, it was eventually recognised that "within school" differences account for much more variation in achievement scores than do between school differences and that dynamic variables are much more influential than are static variables (Dawney et. al, 1993). In a second study, Coleman focussed on within - school and dynamic variables and found that schools and their strategies for using resources do indeed account for a great deal of variation in student achievement scores (Coleman, Hoffer, and Kilgore,1981). A large number of studies in the developing

countries have consistently demonstrated that availability of instructional materials positively influence learner achievement. Developing countries in order to improve their school effectiveness and learners' achievement, should include policy interventions in five principal areas (a) improving the curriculum, (b) increasing learning material, (c) increasing instructional time, (d) improving teaching, and (e) increasing the learning capacity of students. In developing countries, the evidence is growing that these school-based interventions raise student achievement (Lockheed and Verspoor, 1991). The levels of infrastructure seem to have a close correlation with learner achievement as one moves from least facility schools (Govinda and Varghese, 1993). Internal World Bank Data from the Philippines suggest that the number of students completing the primary grade cycle increases the school environment improves, as measurely the average cognitive achievement of pupils, especially the poor. Researchers have found that availability of textbooks and instructional materials has a consistently positive effect on student achievement in developing countries (Heyremann Farnel, and Sepulveda-Stuando, 1991).

The academic and professional training of teachers has a direct and positive bearing on the quality of their performance and consequently on the achievement of students (Avalos and Haddad, 1981; Gusen, Saha, and Noonan, 1978; Schiefeibein and Simmons, 1981). In some countries teacher training clearly makes a difference for student learning, in other, it does not (Fuller, 1987; Lockheed and Komenan, 1989). Govinda and Varghese (1993) in their study of primary schools in Madhya Pradesh found that irrespective of level of academic qualifications they possess, teachers with professional training in teaching perform significantly better in terms of learning outcome of their students.

Research from a variety of countries has shown that the amount of time available for teaching and learning

academic subjects, and how well that time is used by students and teachers, is consistently related to how much children learn while they are in school. In India, Iran, and Thailand students learned more science when the amount of time spent on instruction and reading increased (Heyreman and Loxey, 1983).

From the discussion on the school quality and learner achievement, it could be concluded that the "within-school" factors such as curricular inputs, teaching learning process, organisational climate, time management, teachers professional training, etc. play a significant role in determining and predicting learner achievement. Teachers and policy makers manipulate the "malleable" variables which include almost all in-school factors to ensure effective teaching-learning and consequently, better learner achievement. Therefore, initiatives and actions for improving student learning should largely take into account the "malleable" variables. In other words, the prospects of improving student learning continues to be within the purview of the school.

1.3. The Problem

In the endeavour towards actualizing universalization of elementary education quantitative expansion in terms of enrolment, number of schools and teachers have been phenomenal in the last four decades. But as discussed in the previous sections, the two other aspects of UEE i.e. retention and universalization of high quality of education continue to elude the planners and administrators. Even the numerical expansion of enrolment and schools are not without serious problems. The high dropout rates in the primary classes have greatly neutralised the increase in enrolment and the expansion of schools has not been supported by minimum infrastructural facilities in most cases. Again, regional disparities in these parameters of primary schooling are also glaring. The backward regions

continue to be behind the mainstream in spite of several efforts like Total Literacy Campaigns and Education For All programmes.

The District Primary Education Programme (DPEP) has been proposed as an integrated approach to co-ordinate, consolidate and accelerate the quantitative as well as qualitative aspects. The national experience is that UEE needs to be contextual i.e., to fulfil the local specific needs entailing local area planning with disaggregated targets and decentralized planning and management (Department of Education, 1995). Precisely the overall goal of DPEP has been envisaged as the "reconstruction of primary education as a whole in selected districts instead of piecemeal implementation of schemes. An integrated approach is more likely to achieve synergies among different programme components" (POA, 1992, p.37).

As discussed earlier in this chapter, quality of education stems from the quality of achievement of the learners who constitute the focal point in any learning system. Teachers, teaching methods, home and school environment, infrastructural facilities act as facilitators of learners' achievement. Therefore, before launching the programme, detailed and comprehensive picture of the learners characteristics, and their existing levels of attainment and all information regarding the facilitators of learning must be made available for systematic and effective planning and implementation of programme. Keeping these in view this Baseline Assessment Study (BAS) was conducted in the five districts of Orissa State which were identified as educationally backward viz. Bolangir, Dhenkanal, Gajapati, Kalahandi and Rayagada.

This Baseline Assessment Study has sought to answer the following research questions regarding the quality of schooling and learner achievement in the context of the five educationally backward districts of Orissa.

- What are the existing levels of learning achievement of children in primary schools ?
- Can the difference in learning achievement be attributable to disparity in gender, caste and locality ?
- What are the factors, personal or environmental (home and school) that influence the learners' attainment ?
- What are the factors responsible for learners to drop out of the system ?
- What makes schools differ in the degrees of their effectiveness ?

1.3.1. Objectives of the study

Since marks on achievement tests have been universally used as a basic indication of quality of school education, the main purpose of this study was, therefore, to assess the attainment levels of the learner of primary schools. Further, as the primary school curriculum is intended to develop competencies in two major areas i.e. in language and mathematics, the learners' achievement levels have been sought to be ascertained in these two areas.

The primary schools in Orissa, as in other states of India, consist of classes from I to V. The achievement levels of the learners towards the end of class-V logically provides the basis for judging the school effectiveness and as such the main objective of this study was to assess the achievement in language and mathematics of students continuing in class-V.

It is presumed that the performance at the beginning of primary schooling may act as predictor of achievement at the class-V level and thus can act as an explanatory variable in the analysis of class-V results. Hence it was thought proper to assess performance in basic skills of literacy and numeracy after the completion of 1st year of schooling.

The scores on achievement tests were then analyzed to explore the intraindividual difference in terms of gender, location (urban or rural) and caste (SC,ST,OBC and others).

While analyzing the achievement scores to assess the quality of learning, the factors influencing learning namely, personal, school and family variables have also been the targets of the probe in this study.

The premise that personal, and environmental factors influence learning might help to answer the question as to why some learners leave the school prematurely. This was another objective of this work.

Besides ascertaining the quality of learning outcomes in the schools and the factors influencing such outcomes, collecting data concerning various aspects of schooling like, enrolment, attendance, dropout, and repetition rates, school facilities, availability of educational materials in school, teacher characteristics, teaching process which would be useful to the educational planners, managers and researchers have also been aimed at through this piece of work.

In brief, the major objectives of this Baseline Assessment Study in the context of Orissa are :

- to measure the levels of learners' achievement at the primary levels of education in language and mathematics;
- to examine the differences among the students of primary schools due to gender, location, caste variations;
- to identify and analyze the factors that influence learner achievement;
- to examine the influence of family & school factors responsible for learners to dropout of the school;
- to assess the status and functioning of primary schools; and
- to probe into the factors contributing to the school affectiveness.

1.4. Method

Five revenue districts of Orissa State viz, Balangir, Dhenkanal, Gajapati, Kalahandi and Rayagada were selected for the implementation of the DPEP on the basis of educational backwardness, low female literacy rate and high concentration of socially disadvantaged populations.

Since school was the basic unit of the study, all the types of primary schools in these districts constituted the population from which samples were drawn.

1.4.1. Sample

The study was aimed primarily at studying the learner achievement in the context of schooling. Therefore, the types of groups constituting samples must include all the persons related to the school learning namely, types of schools, learners, dropouts, and teachers. The sampling, therefore, was done at three levels after the identification of the districts, utilising multistage random sampling procedure.

At the first level 20% of the blocks and urban conglomerations from each district were selected using the following criteria :

1. District having 1-10 blocks, two to be selected.

2. District having 11-20 blocks, three to be selected

If a district had a tribal block, it was to be included in the sample.

The criteria of selection of urban areas were

1. Districts having 1-10 urban areas, two to be selected.

2. Districts having 11-20 urban areas, three to be selected.

Following the random sampling procedure, the blocks/urban areas from the five districts were selected as shown in Table 1.1.

Table 1.1
Districtwise Distribution of Sampling Units (Orissa).

District	Balangir		Dhenkanal		Gajapati		Kalahandi		Rayagada		Total	
	Block	Urban Areas	Block	Urban Areas	Block	Urban Areas	Block	Urban Areas	Block	Urban Areas	Block	Urban Areas
Blocks/Urban Areas	14	03	08	03	07	02	13	03	11	03	53	14
Sampled Blocks/Urban Areas	03	02	02	02	02	01	03	02	03	02	13	09
Total Number of Schools in the district	1702		911		794		1450		1239		6096	
Sampled Schools	43	02	32	03	31	04	40	02	32	05	178	16
% Sampled Schools to the Number of Schools in the District	2.6		3.8		4.4		2.8		3.0		3.18	
% Urban Population (1991 Census)	10.55		08.23		10.29		6.90		4.83		10.36	

The schools were then selected from the sampled blocks/urban areas. Approximately, three percent of the total number of schools in a district, subject to a minimum of 35 and maximum 45 schools, were chosen from the identified areas. The rural—urban dichotomy in the selection of schools was made in the proportion of the populations in the blocks and urban areas of the district. The following procedure was followed in sampling the schools in the blocks :

1. The schools in the urabn areas, if any, were removed from the list of schools in a block.
2. The schools were then arranged in alphabetical order.
3. Required number of schools were then selected using random number table.
4. A replacement list of 10 schools in case of need for substitution during data collection was also prepared for each block.

The criteria of selection of schools from the urban areas are as follows :

1. The number of schools to be selected from each of the sampled urban areas was determined on the basis of the proportion of their populations.
2. The names of the schools in each of the sampled urban area was arranged in alphabetical order.
3. The schools were chosen using random numbers.

However, the schools in the headquarters of these districts were excluded from the sample of urban schools.

At the third stage, the students of classes 5 and 2, dropouts and teachers were selected from sampled schools. For this purpose, the schools were divided into two categories on the basis of class size i.e. high and low enrolment categories with 30 pupils in the class 5 of the school constituting the baseline. In case of schools with low

enrolment (i.e. less than 30 students in class 5), all the students were included in the sample and in schools with high enrolment only 30 students were selected using random start procedure. The same procedure was followed in the selection of class 2 pupils with a class size of 20 students forming the baseline.

However, the low enrolment schools which had three or less number of students in the rolls of class 5 or class 2 were dropped from the sample and were replaced by schools from the list of replacement schools randomly.

In each of the sampled schools at least five students who were enrolled in class 5 but have discontinued their studies for more than three months from the date of survey in the school were selected as dropouts. The help of the teachers teaching in class 5, the students in the class and the school records was taken in identifying these samples of dropouts.

Finally, teachers from each of the sampled schools were selected as per the following criteria :

- (i) Headmaster/Headmistress and the teacher(s) teaching in class 5 were included without exception.
- (ii) The school in which there are five or less number of teachers, including the Headmaster/Headmistress all of them were selected.
- (iii) Where the number of teachers exceeded five, four teachers, excluding Headmaster/Headmistress were selected using random number tables. Care was taken not to exclude the teacher(s) teaching in class 5.
- (iv) Care was taken to ensure the inclusion of atleast one lady teacher, if available, in the sample.

Out of total 53 blocks and 14 urban areas in the five project districts 13 blocks and 9 urban areas were selected following the procedure mentioned above. The survey was conducted in 196 schools in the selected areas.

From these schools 513 teachers including head teachers, were interviewed. 1801 class 5 students, 2125 class 2 students and 358 dropouts were selected as samples for this study. The genderwise, locationwise and blockwise distribution of the participants are presented in Tables 1.2, 1.3 and 1.4 respectively.

1.4.2 Instruments

Two groups of tools were employed for collection of data in this Baseline Assessment Study which are :

- Tests of achievement to assess the levels of attainment in language and mathematics of the students of class 5, in literacy and numeracy of class 2 students and dropouts.
- Schedules for collecting information from sample schools.

Achievement Tests

Four tests of achievement developed and standardized by NCERT for the use in the countrywide survey on Primary School Attainment conducted in March, 1991 were used in this Baseline Assessment Study after suitable modification and adoption into Oriya, the language used in the state of Orissa. The following is the brief description of the tests.

NCERT Class 5 Language Assessment Test (LAT)

It was a parallel version of NCERT's test, based on class 5 syllabus on Oriya Language. The test contained 84 items which were divided into two sections. The first section, Word meaning section, constituted of 40 items with equal number of antonyms (WMA) and synonyms (WMS) (Table 1.5). The second section, intended to assess reading comprehension, had 44 items presented in multiple-choice format to measure pupils' understanding of meaning of words and sentences (RCM) and passages of factual details (RCF), drawing inferences (RCI) and identifying central ideas (RCC). The items were arranged in order of increasing

Table 1.2
Districtwise and Genderwise distribution of total Sample.

District	Class 5		Class 2		Drop Outs		Teachers	
	M	F	M	F	M	I	M	I
Balangir	255	107	230	201	68	62	88	26
Dhenkanal	285	244	298	225	50	27	77	25
Gajapati	164	72	215	117	20	14	65	33
Kalahandi	185	97	239	159	47	32	81	19
Rayagada	267	125	277	164	32	46	87	22
TOTAL	1156	645	1259	866	217	181	398	125

Table 1.3
Districtwise Distribution of Total Sampling (Students and Teachers)

District	Class 5		Class 2		Drop Out		Teachers		No of Schools	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Balangir	270	92	358	73	129	14	99	15	42	3
Dhenkanal	378	151	467	56	75	2	89	13	32	3
Gajapati	180	56	280	52	32	5	82	16	31	4
Kalahandi	244	38	365	33	91	2	92	8	40	2
Rayagada	318	74	381	60	69	9	89	20	32	5
Total	1390	411	1851	274	396	32	451	72	177	17

Table 1.4
Blockwise Distribution of Total Sample

District	Block	Schools	Class V	Class II	Dropouts	Teachers
Balangir	Urban Areas	3	108	73	9	15
	Palnagarh	16	87	165	59	43
	Puntala	13	71	97	28	24
	Saintala	13	96	96	34	30
Dhenkanal	Urban Areas	3	58	56	2	13
	Hindoi	19	322	307	46	54
	Kandadahad	13	149	152	29	34
Gajapati	Urban Areas	4	56	52	5	16
	Paralakhmundi	14	96	146	17	43
	R. Udagagiri	17	84	134	12	39
Kalahandi	Urban Areas	2	0	33	2	8
	Langarah	11	58	98	20	20
	Kokasara	11	103	105	32	24
	Bhawanipatna	18	121	162	25	48
Rayagada	Urban Areas	5	0	60	9	20
	Muniguda	9	81	100	18	26
	Gudari	13	106	146	24	37
	Kolanara	10	125	135	27	21

Table 1.5
Profile of Class-5 Language Test.

Area		Items
Word Meaning	Antonyms (WMA)	22
	Synonyms (WMS)	18
	Total	40
Reading Comprehension	Meaning of words/ sentences (RCM)	5
	factual Details (RDF)	24
	Inferences (RCI)	13
	Title/Central Idea (RCC)	2
Total Reading Comprehension		44

difficulty. Correct response to each item was scored 1 mark.

NCERT Class 5 Mathematics Achievement Test (MAT)

This is a modified version of NCERT's test based on mathematics syllabus for class IV consisting of 40 items presented in multiple-choice format. These items were intended to measure the pupils' understanding of four fundamental operations—decimal and fractional number, multiples, unitary method, measurement of time, weight & measures and fundamental concepts of geometry (Table 1.6). Items, in this test, were also arranged in the ascending order of difficulty. Correct response to each item was awarded 1 mark.

NCERT Class 2 Achievement Test

This is again a modified version of NCERT's composite test on literacy and numeracy based on competencies expected to be acquired by the end of class 1. The literacy test consisted of reading 10 letters in Oriya alphabets and 10 words of Oriya language (Table 1.7). The numeracy test contained 14 items which included 6 items for recognizing smaller and larger numbers in a pair of one and/or two-digit numbers, addition of two one-digit numbers (4 items), and subtraction involving two one-digit numbers (4 items) (Table 1.8).

Literacy and Numeracy Test for Dropouts

This is the shortest among the four tests used in this study consisting of eight items on simple comprehension and equal number of items on four fundamental operations involving two one- and/or two-digit numbers. The section developed for assessing literacy required the dropout to read eight simple sentences in Oriya of four to ten words each followed by eight multiple-choice items to test simple comprehension (Table 1.9). The items were based on content in no way higher than those of class 2 standard as it was assumed that achievement level of dropouts

Table 1.6
Profile of Class-5 Mathematics Test.

Content Area	No. of Items
Number Reading/Recognition	00
Place Value	00
Addition	01
Subtraction	01
Addition and Subtraction	02
Multiplication	03
Division	02
Multiplication and Addition	00
Weights and Measures	05
Time	03
Fraction	06
Geometry/Shapes	02
Decimals	06
Multiples	07
Unitary Method	02
Total	40.

Table 1.7
Profile of Class-2 Literacy Test.

	Area	Items
A Letter Reading	Simple letter	09
	Sanyukt (Complex) letters	01
	Total	10
B Word Reading	Words beginning and ending with letter without 'matra'	02
	Words beginning with letter without 'matra' and ending with letter with 'matra'	01
	Word beginning with letter 'matra' and ending without 'matra'	06
	Word beginning with letter 'matra' and ending with letter with 'matra'	01
	Total	10

Table 1.8
Profile of Class-2 Numeracy Test.

Area		Items
A Recognition of Small and Large Numbers	a Pairs of one digit numbers	1
	b Pairs of two digit numbers	4
	c Pairs of two digit and one digit numbers	1
B. Addition	a Addition of two one digit numbers	2
	b Addition of one digit numbers with zero	1
	c Addition of zero with one digit number	1
C Subtraction	a Involving two one digit numbers	3
	b Involving same one digit numbers	1
Total		14

Table 1.9
Profile of Dropout Literacy and Numeracy Test.

Area	Content	Items
Literacy	Factual	4
	Inferences	4
	Total	8
Numeracy	ADDITION 1 Involving single digit numbers	1
	2 Involving single and double digits numbers	2
	3 Involving two double digits numbers	1
	SUBTRACTION 1 Involving one digit numbers	1
	2 Involving two digit numbers	1
	MULTIPLICATION 1 Involving two single digit numbers	1
	2 Involving double digit and single digit numbers	1
	Total	8

may not be as high as their counterparts in the schools.

B. Schedules

In order to collect information relating to personal, school and home factors influencing learning of students in class 2 and 5 and of dropouts, the following four structured schedules developed by NCERT were used after minor modification and translating into Oriya. The information were collected from the sampled schools, teachers, students of classess 2 and 5, and dropouts.

1. Students Present Schedule (SPS)

This schedule contained 43 items relating to general details about the respondents (students of class 5). These items were organised under 16 sub-sections covering as many back-ground variables relating to socio-economic status of the family, pre-schooling, school related activities, health and nutrition of the students and school attendance. The items were intended to gather factual information about background variables and pupils perceptions of functioning of school.

2. Students Dropout Schedule (SDS)

This was a modified version of the students present schedule used for interviewing the dropouts and consisted of 19 items relating to background variables including items seeking information regarding reasons for leaving school and the type of work the dropout was engaged in.

3. Teachers Schedule (TS)

This schedule was used to interview the teachers and the headmasters of sampled schools. This contained 36 items arranged in nine sections relating to teachers qualification, training and teaching experience, family background, teaching activity, supervision, etc. In addition 13 more items arranged in four sections meant to interview the headmasters on their responsibilities, teaching systems, students' expenditure on education and community participation in education.

4. School Record Schedule (SRS)

This schedule was consisted of 11 sub-sections with total 29 items intended to collect factual data concerning pupil enrolment, attendance, teachers' qualifications, teaching time, teaching equipments and facilities available in school, financial and material help received by the school and the total working days.

Besides the above mentioned tools, the investigators maintained a set of field notes for each school. Apart from recording the procedures for selecting pupils, dropouts and teachers and listing details of the sampling, the field notes contained the investigators' observations and qualitative information that might aid in explaining and interpreting the results.

Procedure

The project was conducted in two major stages: conduct of the survey, and processing of the data. Conduct of the survey involved the choice of the project team, training of the field workers and the process of data collection.

Project Team

For each district a project team comprising one Principal Investigator, three Field Supervisors (FS) and 12/14 Field Investigators (FI). Five senior members of Education faculty with more than 15 years of teaching and research experience and serving in different projects at SCERT, Orissa, Bhubaneswar were appointed as principal investigators. The field supervisors were selected from the teaching members of the DIETs or CTEs of the respective districts or neighbouring districts. Unemployed graduates with post-graduate diploma or degree in Education were selected as field investigators. Care was taken to select some women members in each team as field investigators to facilitate the collection of data wherever the gender conservatism was found to be more pronounced.

Training Programme

Before the team went in for the actual data collection, they were exposed to intensive orientation in two stages. In the first stage, all the principal investigators and the field supervisors under-went a ten-day training organised at the Directorate of Teacher Education and SCERT, Orissa, Bhubaneswar from 20th January, 1996 to 29th January, 1996. The experts from the NCERT conducted the programme as resource personnel. The process of sampling blocks/urban areas, schools, students, teachers and dropouts the techniques of collection of data through schedules and procedure of administration of tests, and programming the data collection at different places were discussed in detail with aid of two brochures on training and field work prepared at NCERT level. The participants were given three days of practical experience of field work operation for the collection of data.

The principal investigator and the field supervisors of a district conducted the training programme for the field investigators at their respective district headquarters. These training programmes were of 10 days duration from 14th February to 23rd February, 1996 and the training curriculum was exactly the same as the first one.

Data Collection

In the course of data collection, a systematic division of work by the team was planned and a definite time schedule was also followed. In the field deployment plan, in each team the 12/14 field investigators (FI) were divided into six or seven groups with two members in each group. Two groups of field investigators were

under the supervision of one field supervisor (FS). The Principal Investigator(PI) was in overall charge of the field work by the team.

Time Schedule

The data were collected simultaneously from the five districts from 24th February to 18th March, 1996. In each district, the respective teams moved from one location to another assigning one sample school to one group of investigators randomly. Data from a particular school were collected within three days as per a definite time table (Table 1.10)

Table 1.10

Time schedule of data collection in a school

Day	Field Investigator	Tasks
1st Day	1	Complete School Record Schedule selection of teachers (if necessary), complete Teachers' Schedule, indentify dropouts.
	2	Select class 5 students and administer Achievement Tests on them. Commence filling up of Students Present Schedule, and identify dropouts.
2nd Day	1	Complete the spill over of the 1st day's tasks. Select class 2 students and conduct the oral tests. Assist team Field Investigator 2 in student interview.
	2	Complete student interviews.
3rd Day	Both 1 & 2	Conduct literacy and numeracy tests and interviews in respect of dropouts.

Slight variations were made in this time schedule depending on the problems faced but three days timing was adhered to as strictly as possible.

In the sampling of students, and in the administration of tests, the teachers' involvement was strictly avoided to minimize the teachers' bias. Examples of items and the process of reporting were clearly explained to the students because of their unfamiliarity with the multiple-choice item formats and they were allowed enough time for completing the test. Care was taken to see that the students did not take recourse to any unfair means while responding the items.

After each day, the project team assembled in the camp at evening hours and scrutinized the data collected on the day and planned for the next day. The mistakes or omissions detected were corrected on the next day. The principal investigator and the field supervisors were always available to help and monitor the investigators work so as to make the data as fool proof as possible.

Data Processing

The data were then subjected to detailed scrutiny at each district level by the principal investigators and field supervisors particularly, regarding the correctness of the codes used at appropriate places in different scheduleds and tests.

Finally, at the state level, another round of scrutiny was done to ensure the uninformativity and correctness of the codes used.

The data were then transferred to magnetic media using SPSS Data Entry Programme. The data thus entered were subjected to data verification before going in for the final analysis.

Statistical Analysis

Since this work is essentially descriptive in nature, two statistical methods of analysis were employed. Frequency and percentage distributions with respect to each

attribute of the variables were presented from which a broad picture of the variables under study could be discernable. Wherever necessary, for intragroup comparison critical ratio test in the form of t-test were conducted with help of group means and standard deviations. Graphical presentations of the data for easy and comprehensible visual comparison were also presented wherever it was felt necessary.

CHAPTER II

THE SETTING

- ◆ DEVELOPMENT OF PRIMARY EDUCATION
IN ORISSA
- ◆ THE PROJECT DISTRICTS

CHAPTER II

THE SETTING

The District Primary Education Programme (DPEP) is being implemented in five relatively educationally unadvanced districts of Orissa, namely, Balangir, Bhenkanal, Gajapati, Kalahandi and Rayagada. The logic and logistics of DPEP are essentially based on the premises of disaggregated target setting and rock-bottom microplanning. The emergence of glaring disparities in the process of overall development of primary education system has led us to focus our efforts on the backward regions and disadvantaged groups with a mechanism of protective discrimination. One of the implicit, nevertheless visible, objectives of DPEP is to progressively reduce the extent of disquieting disparities in access, retention and achievement among the learners of backward districts relative to the educationally progressive districts. Logically, therefore, the DPEP interventions in the five targeted districts have to be planned in cognisance of the State norms and parameters of educational development. However, the distinctive features and specific circumstances of the districts will remain as guiding considerations.

With this planning framework of DPEP in view, an attempt has been made in this chapter to present a precise situational analysis of primary education, its strengths and weaknesses, in the state and the profile of the project districts. The presentation of an overall scenario of the state and status of primary education in Orissa is considered imperative on two counts : first, the state averages of various parameters of educational development are the sought for goals of the DPEP districts; and second, the development of education in the districts are to be in conformity with national and state concerns and priorities.

2.1. Development of Primary Education in Orissa

The quantitative expansion of primary education in Orissa during the last four and half a decade has been significant. Judged by all indicators of quantitative expansion, the development of primary education in the state has consistently experienced an upward trend. Apart from the game of numbers, a few initiatives and developments have contributed to the qualitative transformation of the system. In fact, state's endeavour to realise the constitutional commitment for universalizing elementary education has, in no less measure, yielded positive dividends. This is evident from the following presentation of facts and figures.

2.1.1. Provision of Access

Providing opportunities of access is an important aspect of the supply side of primary education. Expansion of supply side of education includes growth in the number of primary schools, increased school places to accommodate more and more school-age children, rise in the number of educationally and professionally qualified teachers, preferably women teachers, etc. The number of primary schools in the state increased from a bare 9,801 in 1950-51 to 42,104 in 1995-96 to meet the growing demand for primary education. The ratio of primary to upper primary schools in the state is 1 : 4 (1995-96) as against the desired norm of 1 : 2. The ratio was 1 : 19 in 1950-51. The total number of children enrolled in classes 1 to 5 in Orissa was 3.15 lakhs in 1950-51. The size of enrolment substantially swelled to 36.8 lakhs in 1991-92 and 37.9 lakhs in 1993-94. Taking enrolment of children in the non-formal sector into consideration, the total number of children of the relevant age-group who have been enrolled comes to 41.87 lakhs (Unicef, Orissa, 1996). As has been observed earlier, the state average enrolment figures tend to mask wide variations with regard to enrolment of girls, children from SC/ST communities, and enrolment in educationally backward districts.

Out of a child population of approximately 55 lakhs, 41.87 lakh children have been enrolled leaving behind 13.13 lakh children outside the ambit of the primary education system. In other words, almost one-fourth of school-age children have not been enrolled and/or have prematurely dropped before completing the five-year primary schooling. The proportion of out-of-school children of the age group 11-14 is alarmingly large i.e., 51 percent. Even though total enrolment in absolute numbers has increased since 1950, the disparity ironically between boys and girls, has actually increased instead of reducing. In terms of net enrolment ratio (NER) i.e., 81.9 percent (6-11) years and 44.7 percent (11-14) years, the state has to traverse a long way to reach the goal of UPE (UMILL, 1992). With increasing reliance on the non-formal channel to provide access to primary education to a substantial segment of the child population who are beyond the ambit of the formal system on account of plurality of reasons, expansion of non-formal stream in the state has been impressive. The number of NFE centres in 1996 is registered to be 1548 in the government sector and 8,700 in non-government sector. The relative growth in enrolment of boys and girls of the age-group 6-11 is evident from the following table.

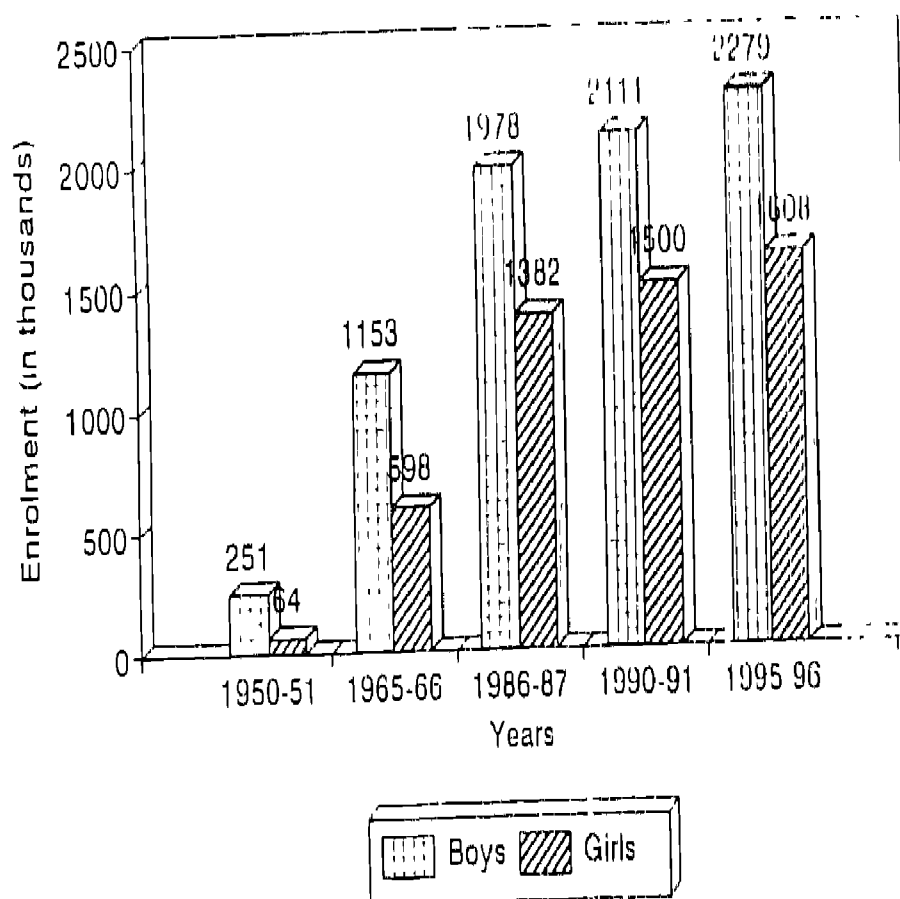
Table 2.1

Growth of Enrolment in Primary Schools by Gender
(Enrolment in '000s)

	1950-51	1965-66	1986-87	1990-91	1995-96
Boys	251	1153	1978	2111	2279
Girls	64	598	1382	1500	1608

Source : State Council of Educational Research and
Training, Orissa, 1995

**Fig.2.1 : Gender Disparity in Enrolment
in Primary Schools of Orissa**



The teachers constitute, next only to students, the largest systems input. The number of primary school teachers have experienced almost a seven-fold fleshing-out during the period 1950-51 to 1995-96. The teacher pupil ratio at present stands at 1 : 35 as against the all India average of 1 : 42. However, this ratio is not evenly dispersed and widely varies between the range 1:18 to 1:70 (Government of Orissa, 1995). One of the welcome indicators is that the percentage of women teachers has been steadily on the rise ascending from a negligible percentage of less than two to almost 25 percent. This position is likely to improve further in view of the state government policy decision to induct more women teachers into the primary education system.

2.1.2. Retention and Dropout

The focus of planning for development of education has now shifted from enrolment per se to retention and completion. Enrolment in the absence of survival figures, does not indicate the internal efficiency of the primary education system. Therefore, retention and completion rates are more revealing of the school effectiveness. Retention of children enrolled is a function of demand for and supply of education. The most recent available statistics indicate that 54 percent of children are found to have survived ravaging forces of 'push' and 'pull' variables. In other words, out of 100 children enrolled in class 1 as many as 46 children dropout before completing class 5 (Government of Orissa, 1995). The position is still worse at the upper primary level i.e. only 35 children out of 100 enrolled reach class 8. The costly incidence of dropout is further accentuated at a disaggregative level : 51 percent in case of girls, 57 percent in case of SC and 72 percent in case of ST children.

The disparities between targeted primary school-age child population, age-specific enrolment and completion of five-year cycle of primary education leave ample scope

for raising the internal efficiency and external productivity of primary education system in the state (Fig.2.2)

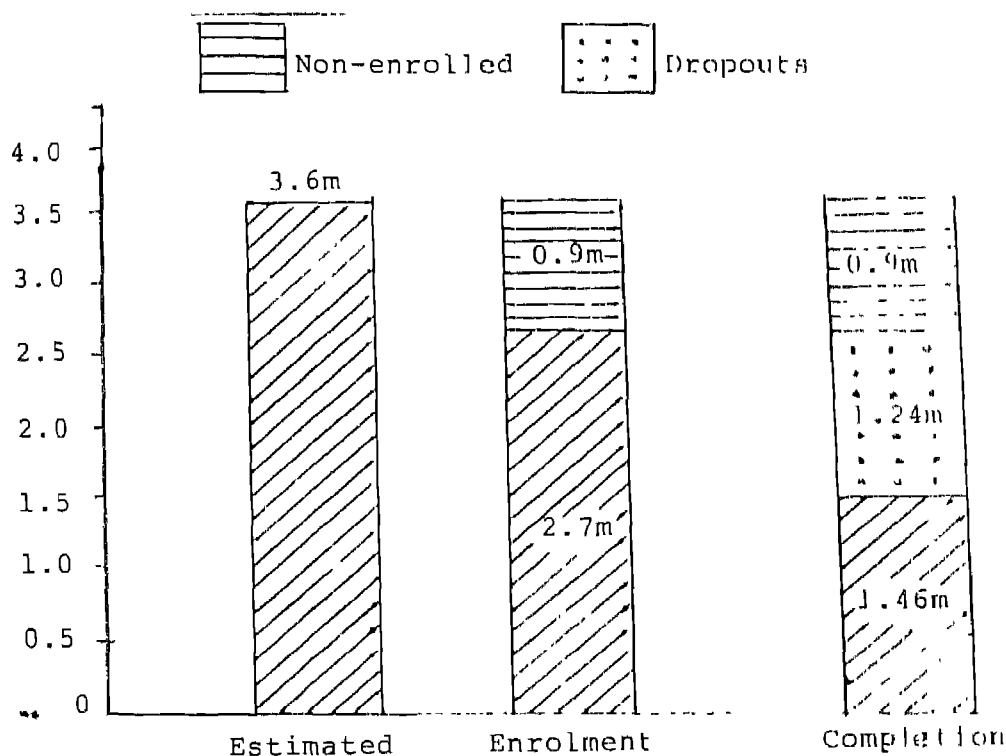


Fig 2.2 Enrolment and Completion of Primary Education of Schoolage(6-11 Years) Children in Orissa

2.1.3. Literacy Scenario

Level of literacy is closely related to and have, direct and indirect implications for quantity, quality and equity issues in primary education. Growth of literacy in the state has been presented in Table 2.2 .

Table 2.2
Growth of Literacy Rates in Orissa (1951-91)

Year	Male	Female	Total
1951	27.3	4.5	15.80
1961	34.68	8.65	21.66
1971	38.29	13.92	26.18
1981	46.90	21.11	34.12
1991	62.37	34.40	48.55

Source : Census of India

It is revealed from the table above that rate of literacy has consistently improved. However, one of the disturbing trends is that female literacy rates have always lagged behind the male literacy rates. Again rural-urban, SC/ST-non SC/ST and inter-district variations in literacy levels are a challenge of immense magnitude to be reckoned with. Once the level of literacy improves, it signals and sets in motion a rapid process of socio-economic development bringing with it improved and better quality of life to people. The Total Literacy Campaign (TLC) has substantially improved the literacy scenario in the state.

2.1.4. Quality of Primary Education

Quality of primary education in Orissa could be considered in the light of parameters of quality as discussed in Chapter I. One of the gross constraints in discerning the quality indicators of primary education in the state is the non-availability of relevant data at the level of aggregation what to speak of at the level of disaggregation. However, in terms of quality of learners achievement, it is found that levels of achievement of learners in literacy and numeracy in 30 MLL Project Schools of Dhenkanal and Angul districts are very low (SCERT, 1995). Nagpal (1995)'s study of baseline assessment of achievement levels of primary school children of Gajapati, Kalahandi, Phulbani and Rayagada districts confirm this finding. Even in the absence of a data base, it could be safely concluded that in terms of number of single teacher schools, schools without buildings, availability of instructional aids, proportion of non-personnel costs, etc., the primary education situation in Orissa is no better than its counterparts in other educationally backward states of the country. However, an EFA document points out some of the major deficiencies of the elementary education system of the state. These are as in 1990-91 :

- As many as 5,865 incomplete primary schools having classes from 1 to 3 to be upgraded upto class 5.

- There are 2,652 single teacher primary schools to be provided with additional teachers.
- Single room primary schools numbering 2,031 need to be provided with additional rooms.
- There are 8,117 building-less primary schools.
- UGME schools numbering 3,139 have no school building.

(Department of Education, 1992)

The government of Orissa is seriously seized with the compelling concern for quality of primary education, particularly since the adoption of NPE and POA (1986 and 1992). A few major initiatives that have been launched with support from Government of India (GOI), Unicef, Unesco, etc. include :

- Operation Blackboard (OB), a GOI sponsored scheme, is intended to improve the quality of infrastructural facilities in primary schools. covered 34,118 primary schools in 314 community Blocks. By 1996, 101 urban areas of the state have been covered under OB. The OB scheme, that started in 1987-88, has three components to improve the logistics of schools, namely; (I) to provide two-room building facility to primary school; (II) to provide atleast two teachers in every primary school; and (III) to provide essential teaching-learning materials, including blackboard, maps, charts, toys etc. to every primary school.
- Massive orientation programmes for inservice primary school teachers in the form of PMOST, SOPT, MLL, and Anandmaya Shiksha is being organised across the state through DIETs, CTEs, and IASEs in order to enrich and update teacher competence. For this, support from GOI, Unicef and UNFPA has

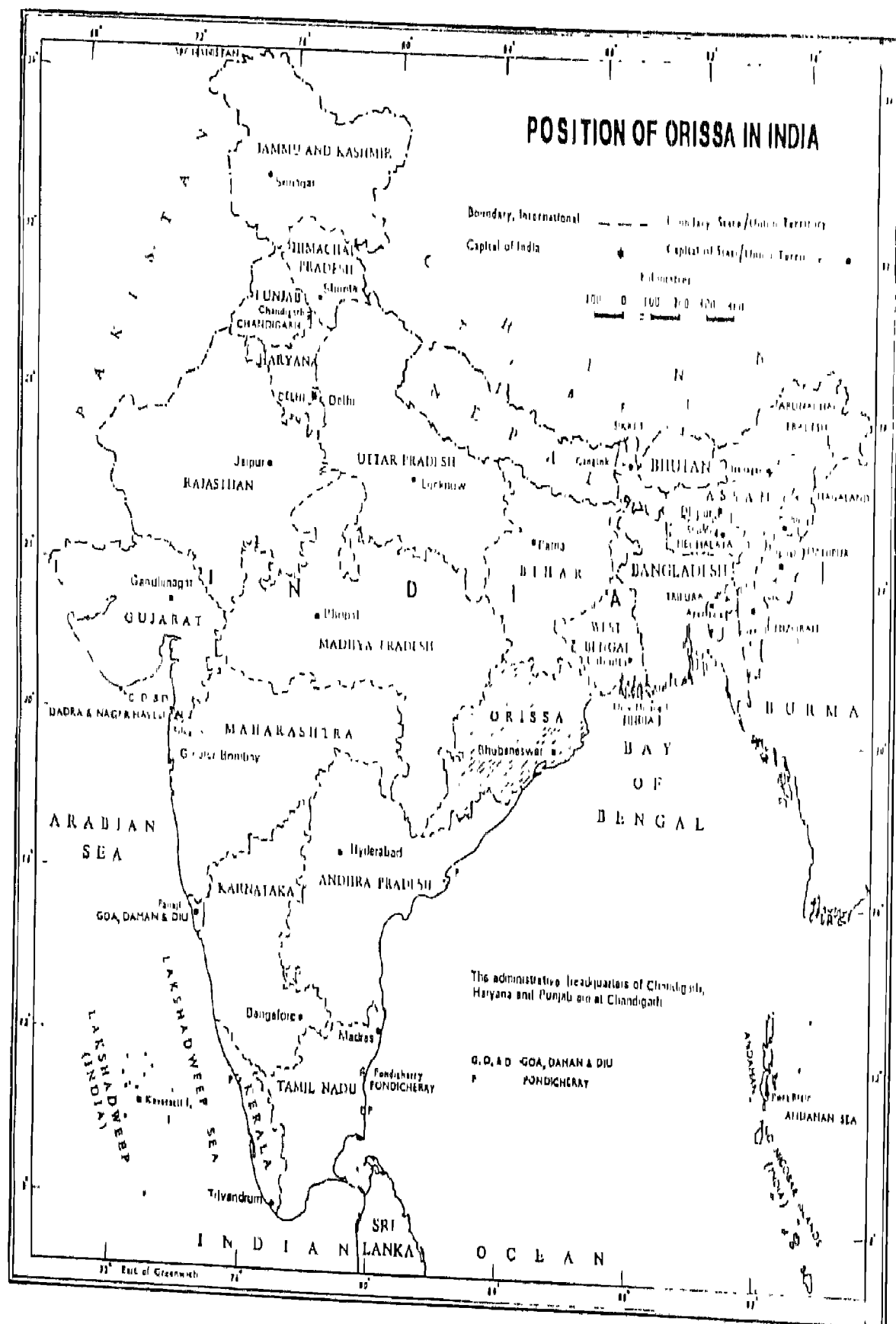
been indeed of very high magnitude. To a large extent the inservice component hitherto the weakest link, has substantially been strengthened and reinforced.

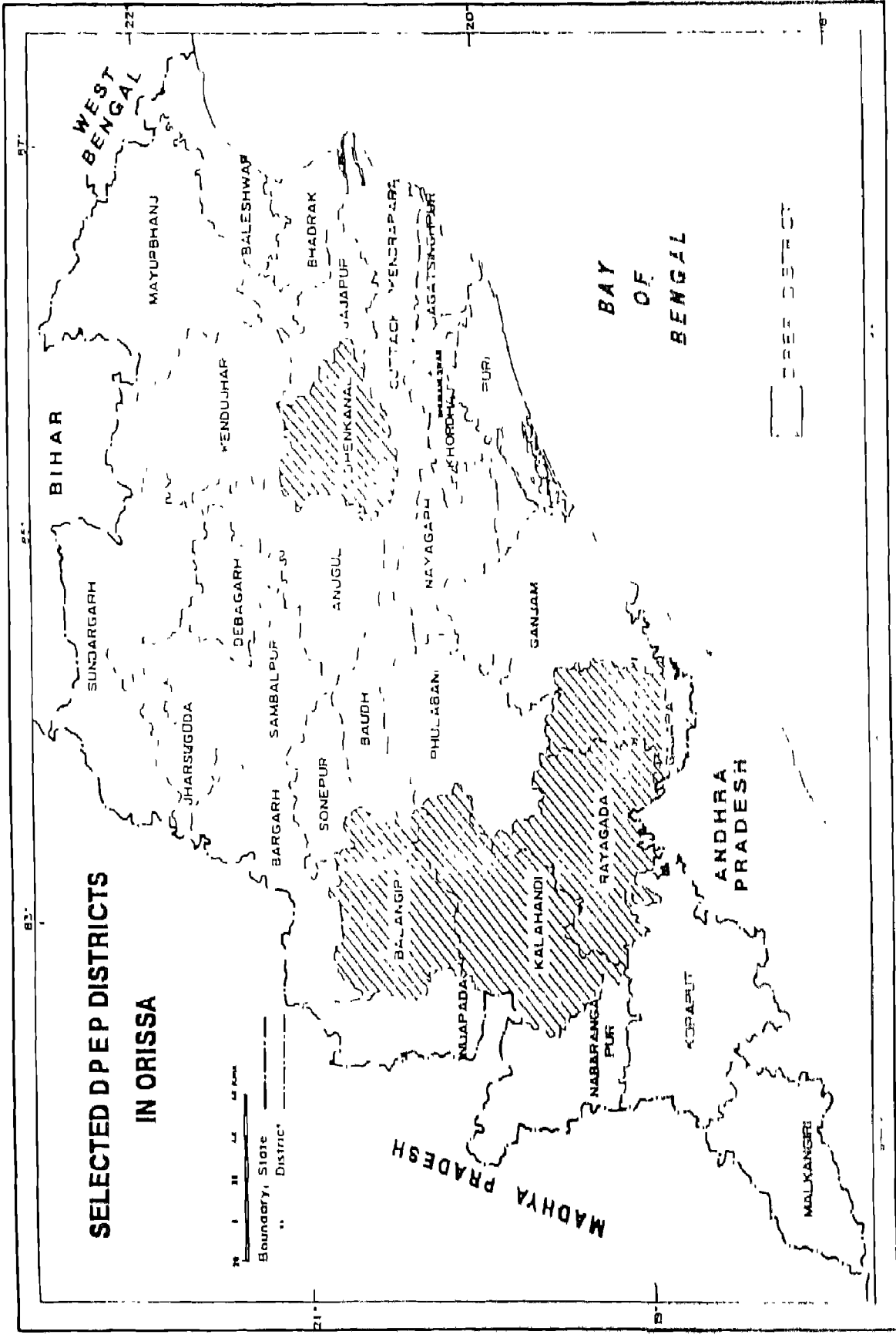
- Establishment of 13 DIETs, six CTEs and three IASEs as a set of vibrant teachers training and research institutions has gone a long way in improving the teacher effectiveness and consequently, the quality of children's learning.
- Introduction of MLL in 30 project schools of Dhenkanal and Angul of the state in 1994-95 on an R and D basis has created a congenial element and has yielded a wealth of insight and experience to upscale the MLL movement on a statewide scale. The Government of Orissa have taken a major policy decision to introduce MLL in class I across the state from the academic session 1996-97 and subsequently to upscale the programme in a phased manner. The competency-based textbooks will replace the conventional textbooks.
- Training in "Anandmaya Siksha"(AS) with built-in component of MLL for teachers of primary schools in eight UPE districts launched by Unicef, Orissa has revolutionised the teaching-learning methodologies and strategies. At the centre stage of this process of quality upgradation of schools are the teachers who are being empowered with pedagogic techniques for making the teaching-learning process and classroom transactions joyful, meaningful and achievable for all children. The AS conceived and conceptualised by Unicef Orissa has tremendous possibilities and potentialities to accelerate the pace of achieving UPE goals.

- The total literacy campaigns have been launched in 18 districts of the state. TLC has undoubtedly generated a number of externalities, apart from creating an ambience with other programmes such as EFA has significantly contributed to UPE in the state.
- The formation of Village Education Committee (VECs) at the grassroot level has been initiated with the intention of ensuring a genuine involvement of villagers in owning schools and enforcing accountability. The 73rd and 74th Amendment to the Constitution indeed concretized the concept of community participation.

With these developments in the field of primary education already initiated in the state, the DPEP interventions will accelerate the scale and pace of UPE. The DPEP seeks to operationalise para 7.4 of the POA (1992) which reads as follows :

"Further efforts would be made to develop district specific projects with specific activities, clearly defined responsibilities, definite time-schedule and specific targets. Each district project will be prepared within the major strategy framework and will be tailored to the specific needs and possibilities in the district. Apart from effective UPE, the goals of each project will include the reduction of existing disparities in educational access, the provision of alternative systems of comparable standards to the disadvantaged groups, a substantial improvement in the quality of schooling facilities, obtaining a genuine community involvement in the running of schools, and building up local level capacity to ensure effective decentralisation of educational planning. That is to say, the overall goal of the project would be reconstruction of primary education as a whole in selected districts





instead of a piecemeal implementation of schemes. An integrated approach is more likely to achieve synergies among different programme components."

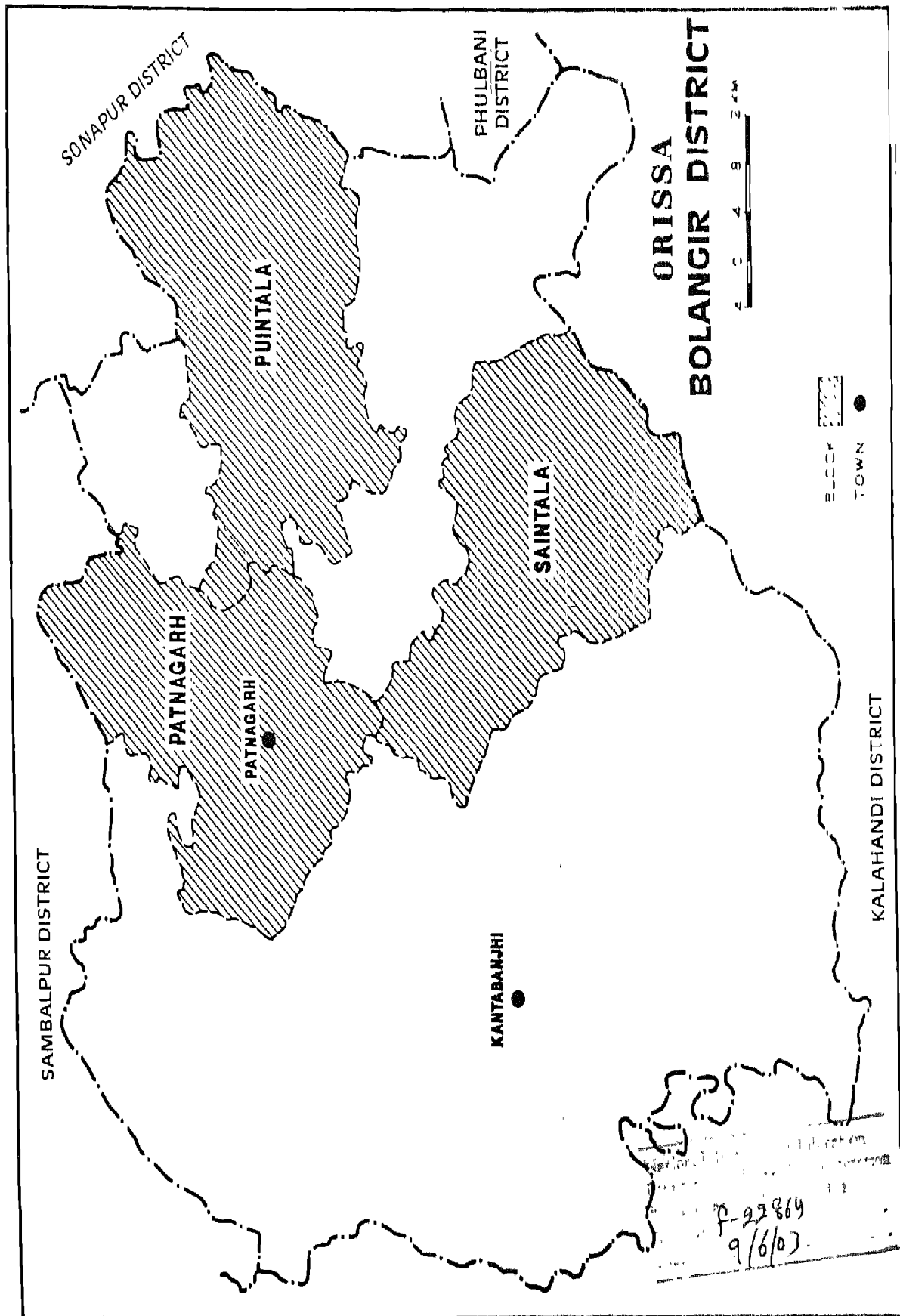
(Department of Education, 1995, p.3).

2.2. The Project Districts

The five districts of Orissa State selected for this study were Balangir, Dhenkanal, Gajapati, Kalahandi and Rayagada. In this section the distinctive features like geographical, socio-economic, administrative, and developmental conditions of the project districts have been presented to provide the context for better comprehension of the present scenario of primary education in these districts. These factors are supposed to have direct or indirect bearing upon the primary schooling of the children of the inhabitants of the region under study.

2.2.1. Balangir

Balangir is a western district of Orissa situated between 82°27'E to 83°38'E longitudes and 20°11' N to 21°15'N latitudes with an area of 6551.5 sq km which is approximately 4.2 percent of the total area of the state. The land forms are characterized by hills and river valleys. Gandhamardan, Chheliapat and Mahada ranges are the prominent hills and tributaries of Mahanadi like Tel, Suktel, Anga and Lanth are the major rivers of the district. About 28 percent of the total area is covered by forest. The most important forest products are sal seeds and kendu leaves which bring sizable income for the state. Approximately 68.6 percent of the total area is used for cultivation which is the main occupation of its inhabitants. The general climate is mostly dry except during rainy season and is more extreme than that of the coastal belt. Since irrigation facilities are quite inadequate cultivation depends entirely on monsoon. Because of the hilly terrain, the road communication is not well developed. Vijayanagaram-Raipur and Titilagarh-Rourkela sections of South Eastern Railways passes through this district. The most of the localities



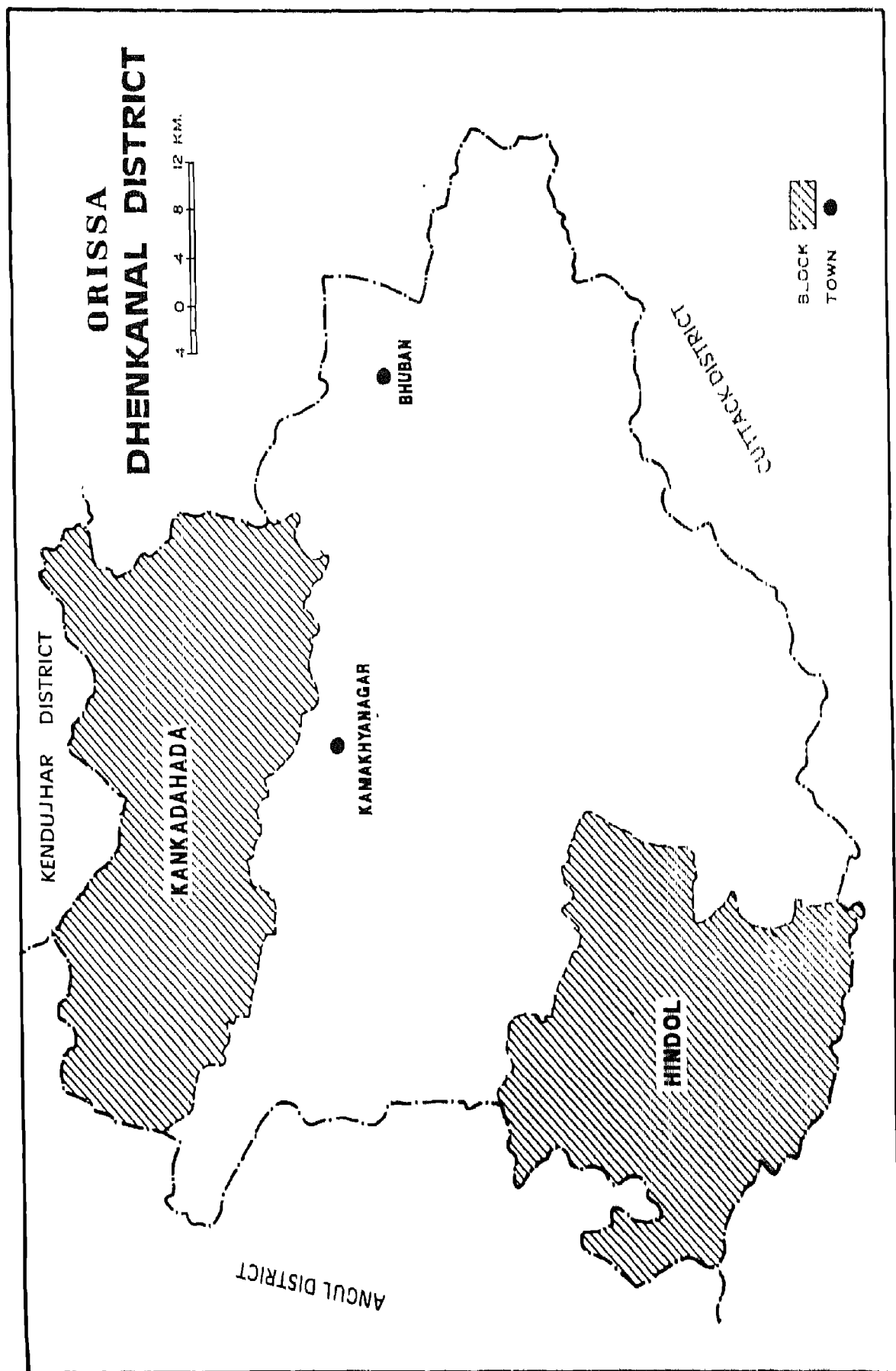
are provided with safe drinking water facilities, and electrification.

The district has three sub-divisions, five revenue tahasils, 14 police stations, 14 blocks, one municipality and three notified area councils and 241 gram-panchayats representing 1882 villages. Balangir, the district headquarters is at a distance of 327 km. towards the west of Bhubaneswar, the state capital. Titilagarh, Kantabanji, Saintala, Patnagarh and Luisinga are some of the important places in the district.

Out of the total population of 12.27 lakhs, 89.45 percent i.e. 10.98 lakhs persons live in rural areas. Males (6,19,493) outnumber females (6,07,852) and the sex ratio is 981 females in 1000 males. The socially disadvantaged section constitute more than half of the total population with schedule caste 15.43 percent and scheduled tribes 37.55 percent (Census Report, 1991). There are nine degree colleges, one college of teacher education, one DIET, three secondary training schools, 415 upper primary and 1702 primary schools in the district. According to the 1991 Census, the literacy rate is 32.32 percent while the male literacy is 46.42 percent and that for the females is only 17.71 percent.

2.2.2. Dhenkanal

Dhenkanal is situated between 20°30' N to 21°19' N latitudes and 85°8' E to 86° E longitudes covering an area of 4527 sq km which is almost three percent of the total area of the state. Nearly 40 percent of the total area is covered by hills and forests. Brahmani, one of the major rivers of the state, and its minor tributaries constitute the river system of the district. Approximately 50 percent of the total area is cultivable and majority of its population (about 85 percent) depend on agriculture. The general climate is warm and humid. Although most part of the agriculture depends on rain, several minor irrigation projects help multi-crop cultivation in several



pockets of district. Communication is moderately developed with the National Highway No.42 and the Cuttack - Talcher section of the South-Eastern Railway running through the district. Most of the localities and places of importance are connected with pucca or metal roads.

According to 1991 Census the total population of the district is 9,47,870 which is around three percent of the total population of the State. The rural population is 8.70 lakhs i.e. 91.76 percent of the total population of the district. The SC and ST constitute 16.02 percent and 12.68 percent of the total population respectively. The sex ratio is 961 females per 1000 males. The literacy rate is 54.9 percent with 68.80 percent of males and 40.33 percent females have been recorded as literates. The literacy rate of SC and ST people is quite low.

For administrative convenience, Dhenkanal district is divided into three sub-divisions, four tahasils and eight blocks. There are one municipality, two notified area councils and 172 gram-panchayats covering 1234 villages.

There are eight degree colleges, 21 +2 colleges and nine vocational schools, one DIET, 209 secondary school 239 upper primary schools, 911 primary schools and 32 sevashram schools. Besides these institutions there is one polytechnic and several institutions run by voluntary agencies for imparting education from early childhood to higher secondary level.

Dhenkanal has a rich cultural heritage in that a powerful Bhakti movement of Mahima sect which originated by the downtrodden sections of the society in the mid nineteenth century and revolted against idolatory and discriminatory practices of the conservative Hindus and believed in the essence of the God and equality of man. This movement had its origin in this district and continues to exert influence over poor and low middle class in the state and predominantly in this district. The seat of this sect is at Jor^anda about 20 km North West of Dhenkanal town.

2.2.3. Gajapati

This district lies between 18°45'N to 19°39' N latitudes and 83°44' E to 84°25' E longitudes with an area of 3440.57 sq km which is about 2.2 percent of the area of the state. This was a part of Ganjam district (Parlakhe mundi sub-division) and was given district status in 2nd October, 1992. Parlakhemundi, its headquarter is situated at a distance of 349 km south of the state capital. This is one of the southern districts of the state bordering Andhra Pradesh to its South. Hence, it has a multicultural population with Oriya and Telgu as two major languages used. More than 65 percent of its area is covered by hills and forests Mahendragiri, Debagiri, Singaraj are some of the prominent hills of this district. Mahendra Tanaya and Vansadhara are the two main rivers alongwith a number of nalas or rivulets constituting the drainage system. The land forms are mostly hilly or high plateau with height from the sea level varying from 790 m to 1510 m. Due to its proximity to sea the general climate is humid except during winter when it is dry and cool. The communication network is not adequately developed. A meter gauge railway from Nuapada to Gunupur passes through this district Road communication is available only to district and block headquarters. There is only 125 km of state high way running through this region. There are 18 telegraph offices and 146 post offices with a few number of public call facilities available in urban areas in this district.

Due to the predominance of hilly lands, & forest cover land available for cultivation is around 25 percent of the total area of which only 28 percent is covered by minor irrigation projects, lift irrigation or tube well irrigation. Shift cultivation on the slopes of hills are also practised which has been the main cause of land erosion and forest depletion. Paddy is the main crop alongwith some varieties of oil seeds which are harvested during winter.

ORISSA GAJAPATI DISTRICT

PHULBANI DISTRICT

0 1 2 KM.

KORAPUT DISTRICT


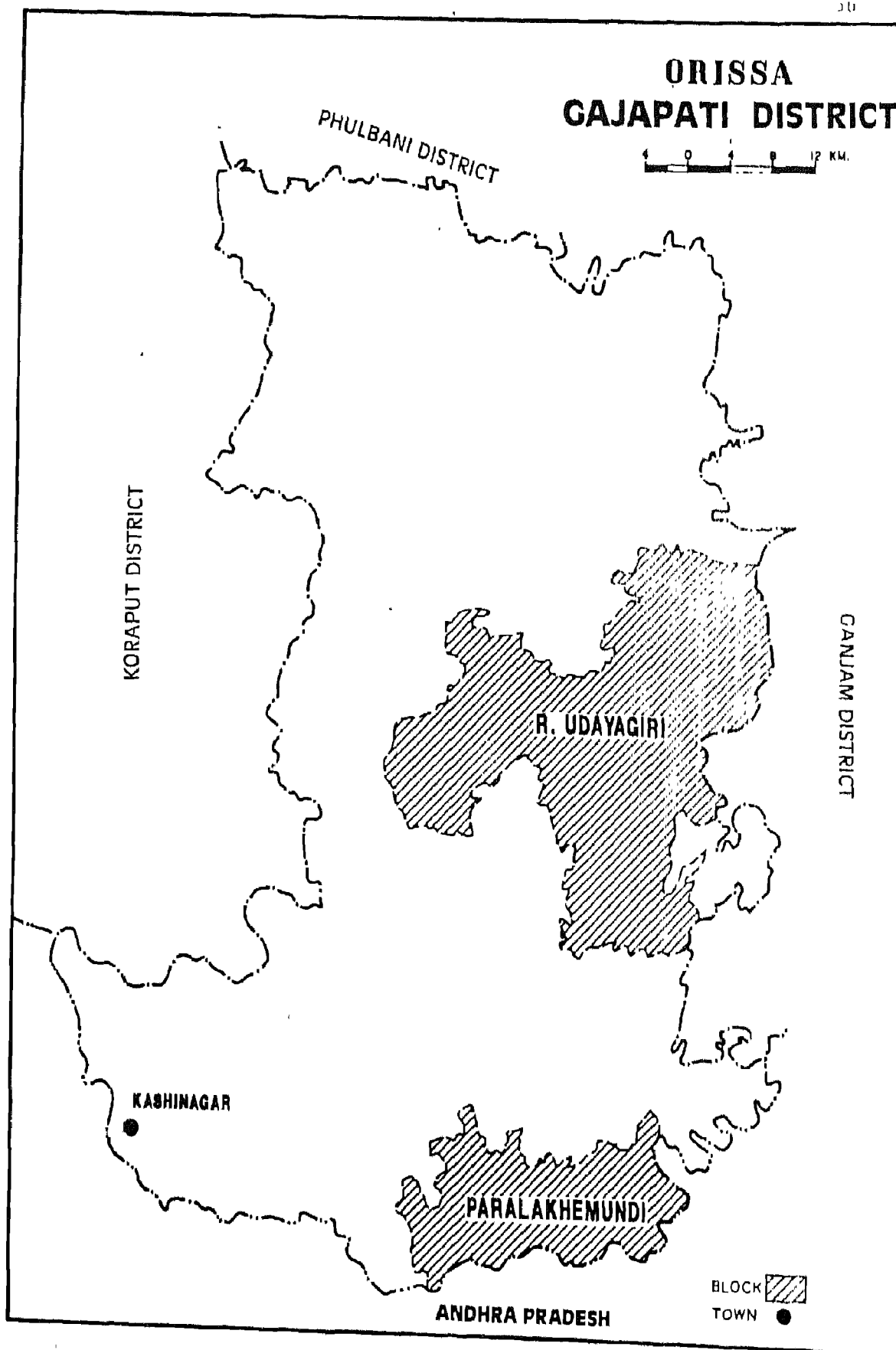

CANJAM DISTRICT

R. UDAYAGIRI

KASHINAGAR

PARALAKHEMUNDI

ANDHRA PRADESH

BLOCK 
TOWN 

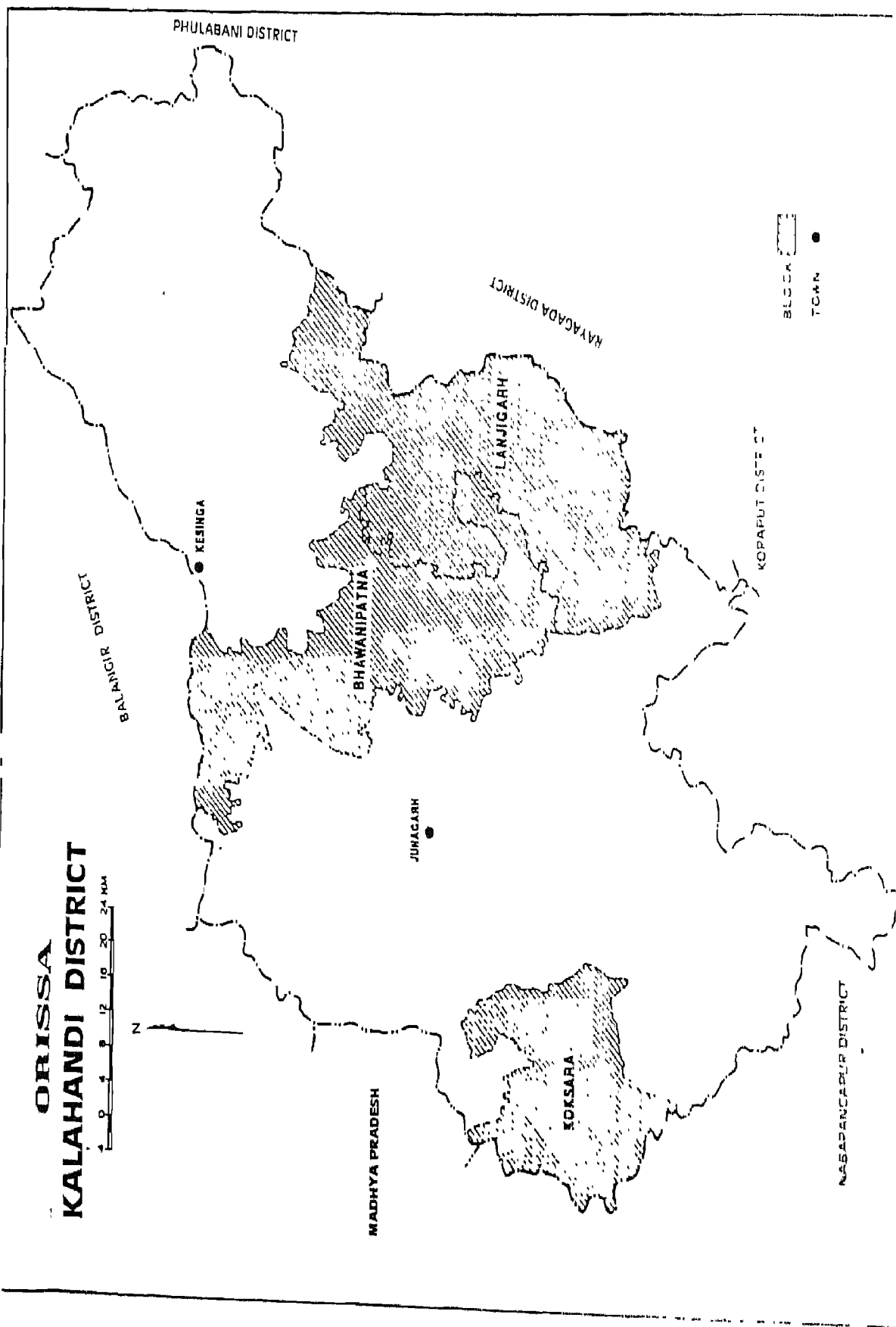
The district has seven blocks, one municipality (Parlakhemundi), one NAC (Kashinagar) and 106 gram panchayats covering 1576 villages.

As per 1991 Census the total population of Gajapati district is 4.55 lakhs i.e. only 1.44 percent of the total population of the state. Majority i.e. 89.71 percent live in rural areas. Around 48 percent of the population are scheduled tribes and 8.8 percent are scheduled caste. The literacy rate in Gajapati district is 29.47 percent with 41.76 percent males and 17.44 percent females being literate. The SC males has an edge over their counterparts in other castes in literacy rate (i.e. 32 percent of SC male are literate) while SC females (12 percent) are much behind the district literacy rates. There are six colleges, 43 high schools, one secondary training school, two vocational schools, 82 upper primary schools, 803 primary and 49 ashram schools. Besides, there is one central school, 342 NFE centres, and 577 Anganwadi Centres.

2.2.4. Kalahandi

Kalahandi is located towards South-West of Orissa between 82°32' E to 83°45' E longitudes and 19°10' N to 20°25' N latitudes with an area of 8373 sq km which is 5.3 percent of the total area of the state. The topography of the district can broadly be divided into two distinct regions i.e. hill tracts and plains. The hill tracts mainly comprise of the hill ranges, a portion the Eastern Ghats, running from north east to south west of the district. The river valleys of Tel and Junk constitute the plain region. Indravati, Hati, Utei & Ret are other rivers in the district.

Kalahandi has an extreme climate which is mostly dry except in the monsoon which is quite irregular in this region and thus, this is one of the most drought prone districts of the country. Nearly 50 percent of the total area is covered by forest. Due to lack of minimum irrigation facility, the agriculture is entirely dependent on rain and the drought condition which is experienced in about every



alternate years, the agricultural yield is irregular and insufficient to cater to the needs of the population. Paddy is the main crop and several pulses and oil seeds also constitute the agricultural products. Most of the population depends on the forest products. Due to the fast depletion of forests and governmental efforts to preserve natural flora and fauna, the income of its inhabitants is quite meagre and are very often forced to bonded labour and migration. This condition of poverty is quite appalling and has got wide publicity in the national and international media.

Forest products like kendu leaf, bamboo, leak wood, fire wood, mahul are the chief sources of income. Among the mineral deposits of bauxite, graphite and manganese graphite is commercially exploited.

The communication facilities are quite underdeveloped. The district & block headquarters are connected by roads. A portion of the Vijayanagaram-Raipur section of South-eastern Railway runs through the district. Most of the villages are yet to be connected with pucca roads.

Under governmental and voluntary efforts developmental work for improving the economic conditions are now under way. Besides providing basic amenities like safe drinking water, electrification, education, health services, vocations based on indigenous raw materials are being encouraged under a long term plan (Planning & Coordination Department, 1995).

According to 1991 Census the total population of the district is 11.31 lakhs which is about 3.6 percent of the total population of the state with nearly equal numbers from both sexes. More than 93 percent of the total population live in villages. SC and ST population constitutes 46 percent of the district's population. The literacy rate is 26 percent with female literacy is meagre 15.28 percent.

The district has two sub-divisions, five tahasils, two NACs, 13 blocks, 12 police stations, 195 gram-panchayats and 2213 revenue villages.

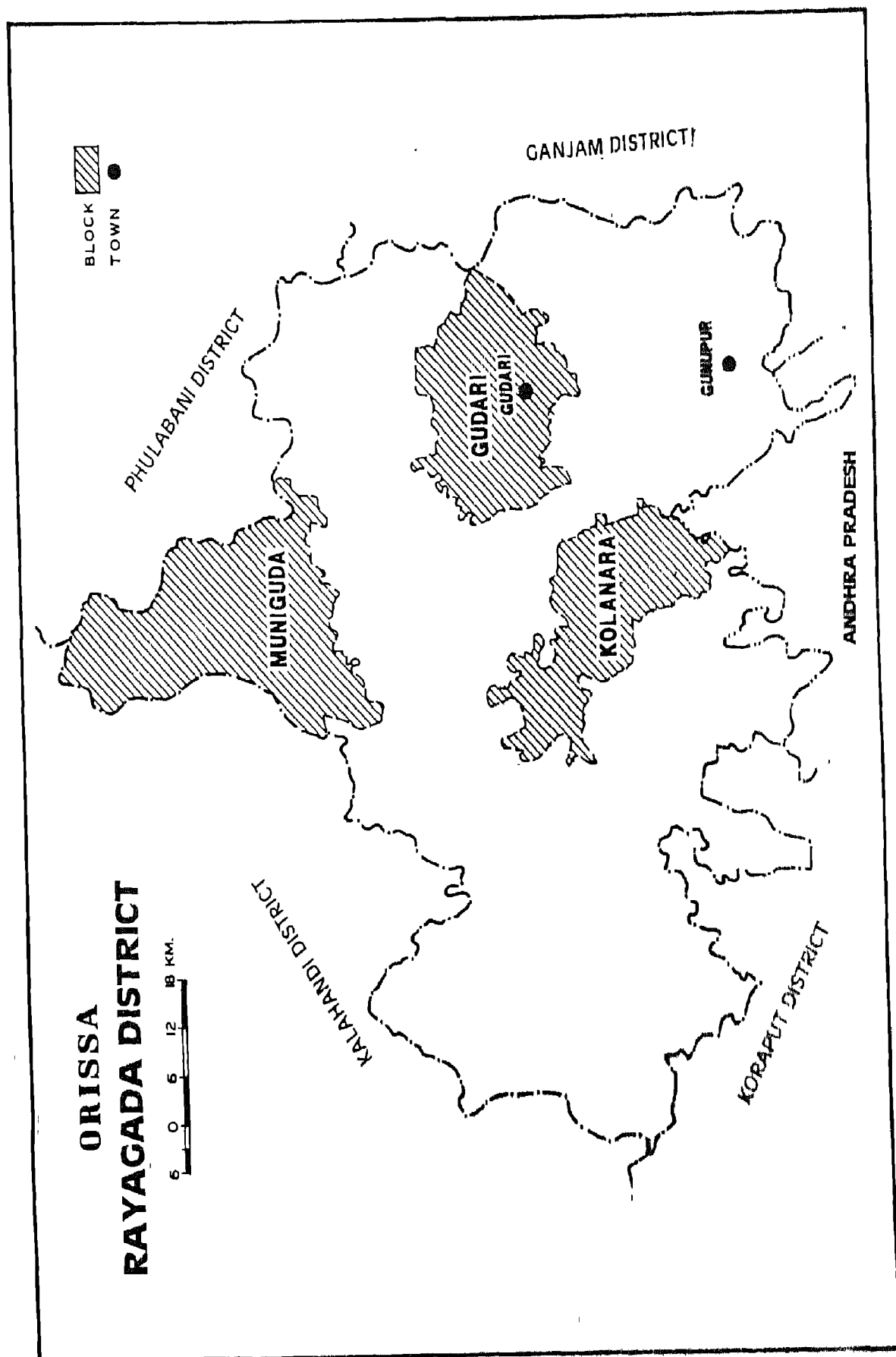
The educational needs of the district is served by 24 colleges, one teacher training college, one DIET, one polytechnic institute, one Navodaya Vidyalaya, 198 secondary schools, 24 upper primary schools, 1450 primary schools, 779 NFE centres and 1152 Anganwadi Centres.

2.2.5. Rayagada

Rayagada was given the district status in 2nd October 1992 constituting two subdivisions i.e. Rayagada and Gunupur of the erstwhile undivided Koraput district. This is a southern district of Orissa bordering Andhra Pradesh to its South and is located between 82°47' E to 84°10' E longitudes and 18°50' N to 19°58' N latitudes covering an area of 7585 sq km which is about 4.96 percent of the total area of the state. Rayagada, the district headquarters is situated 390 km south-west to the state capital.

The physical feature of the district is dominated by hills belonging to the Eastern Ghats. The hills and dense forest cover more than 53 percent of the total area. Kashipur Tahasil is a plateau of about 900 mt height above the sea level. Vansadhara and Nagabali, the two main rivers alongwith their innumerable nalas and rivulets criss-crossing the landscape constitute the main drainage system. Such a geographical feature is the main reason of poor communication facilities developed in this part of the state. a portion of the Vijayanagarm-Raipur section of the South-Eastern Railway was the only railway facility available in this district. Recently, Rayagada has been connected with Koraput through railway. Road facilities are available to district and block headquarters.

Due to the rich mineral deposits of bauxite, manganese, graphite and plenty of forest products the district has some major industries like ferro-alloys, ferro-silicon, and paper have been established and two aluminium plants



with 100 percent export orientation are now being planned. Valuable forest products like costly timbers of sal and teak, kendu leaf, sal seeds and several others are the source of a large revenue to the state.

Only 24 percent of the total area is cultivable and irrigation facilities are available to only 20 percent of the cultivable area. Paddy is the main crop. Maize, ragi, arhar, mustard and alasi are also cultivated.

Out of the district's total population of 7.13 lakhs, nearly 70 percent belong to ST and SC. The Kondha, Soura, Paraja, Dongria Kondh, Gonda are major tribes constituting major portion (56 percent) of the population. The predominantly tribal inhabitants present unique opportunities for the social scientists for probing into their life styles and cultural diversity. More than 85 percent of the total population belong to rural areas. One distinct feature of the population of this district is that females out number males. The sex ratio is favourable to women with 1011 women for every 1000 men.

The district has two subdivisions, four tahasils, 11 blocks, one municipality(Rayagada), two NACs, 12 police stations, 140 gram panchayats with 2369 villages.

The literacy rate is quite low at 26.01 percent with female literacy is as low as 15.63 percent as compared to male literacy rate of 36.53 percent.

There are 11 colleges, two technical schools, two secondary training schools, 62 high schools, 131 upper primary and 1372 primary schools.

From the preceeding discussions, one can comprehend the major factors common to these districts that come in the way of expanding primary education facilities in these areas.

- The topography of these districts are dominated by hilly terrains and river systems which has been the hindrance for road communications.

There are still a large number of pockets of habitations which cannot be negotiated except walking.

- The economy of these districts depends mainly on two sources : forest products and agriculture. Since forest coverage is increasingly being destroyed and with strict regulations to protect them, the income from forests is on the wane. This has a serious stake on the state of living standard of the people of these areas.
- Agriculture is mainly rainfed and since rain, though not low in this region, is not evenly distributed. The agricultural yield is low and inconsistent, thus inducing large scale poverty in the region.
- The agricultural activities, since dependent on rain do not provide engagements throughout the year. That is why unemployment and under employment are endemic in this region forcing migration of capable persons in search of sustained employment leaving behind the old and incapacitated persons, thus, eroding the human resources of these areas. This recurring phenomenon of migration of people, disrupts schooling of small children leading to non-enrolment and dropping out.
- Large scale depletion of forests, the traditional practice of podu cultivation (burning forest covers for shift cultivation) have caused heavy soil erosion by which the fertility of the land is decreasing and agriculture is becoming less productive.
- Poverty induces social security net to become quite loose which has led to dissolution of families, deserted women and uncared for children.

- All these districts are inhabited predominantly by scheduled tribes (ST) who are by nature very simple, innocent, and as such vulnerable to exploitation by other so called advantaged groups. As a result of continuous exploitation the socio-economic lag is considerable enough to aim at rapid growth in any direction.
- Poverty, exploitation, and centuries of neglect has built up a psyche of fatalistic acceptance of sufferings and a sense of indifference among tribes towards any developmental activity, including the spread of education.
- Children in tribal and rural communities of this region are required to supplement to the slender income of their parents and/or to act as baby sitters. Therefore, such school-age children are deprived of basic education opportunities,

The contextuality of UEE varies widely across the states. Even within a state, inter-district variations are not uncommon. Educational planning for UEE, to be realistic and pragmatic has to take into cognisance the stark ground realities emerging from interse interactions with people at the grassroot and from an objective assessment of the state and status of primary education through a systematic study.

That has precisely been attempted in the foregoing discussions.

CHAPTER III

MAJOR FINDINGS

- ◆ SCHOOLS · INFRASTRUCTURE AND MANAGEMENT
- ◆ TEACHERS AND TEACHING LEARNING PROCESS
- ◆ DROPOUTS ; CHARACTERSTICS AND ACHIEVEMENTS
- ◆ ACHIEVEMENT OF CLASS 2 STUDENTS
- ◆ CLASS 5 STUDENTS ; CHARACTERISTICS AND LEARNING ACHIEVEMENT

CHAPTER III

MAJOR FINDINGS

This study was conducted to assess mainly the quality of primary education with the performance of learners at the terminal stage as its index. In explaining the performance of the learners in class 5, their background, the characteristics of facilitators of school learning like teachers, teaching process, the school plant were probed into. The achievement levels of dropouts and the learners with one year of schooling were also ascertained as the predictors of performance during the later years of primary schooling. The major findings of this study, in terms of the infrastructure and management of schools, the characteristics of teachers, head teachers and the teaching learning transactions, the achievement levels of the dropouts and class 2 students have been arranged before finally presenting the characteristics and the quality of achievement of class 5 students.

Section I

Schools : Infrastructure and Management

School management and school facilities have direct and indirect bearing on school quality. School "actors" and their "actions" considerably influence the quality of education and consequently the quantum and quality of learner achievement. This section is, therefore, devoted to a discussion on an overall profile of the sampled schools. The discussion covers a number of aspects of primary schools such as, management infrastructural inputs; instructional practices, additional requirements and community contributions. In short, an attempt has been made in this chapter to present a situational analysis of the state and status of school facilities and management.

Composition of Enrolment

The structural patterns of enrolment in terms of gender, location and caste are discernible from the data presented in Tables 3.1.1, 3.1.2, and 3.1.3. In all five districts, the percentage of enrolment of boys is higher than girls. At the level of aggregation, the percentage of enrolment of boys outstrips the percentage of enrolment of girls. The average percentages of enrolment of the five districts are 58 percent for the former and 42 percent for the later. This reveals incidence of under representation of girls in enrolment though they constitute almost half of the total population. Ironically, the average percentages of girls enrolment in Gajapati, Kalahandi and Rayagada are relatively low (39.0%, 41.6% and 40.1% respectively), even though these districts have a favourable sex ratio. Another disturbing pattern that emerges is : the proportionate share of girls enrolment in all the districts progressively and steadily declines as one moves upward from Class I to Class V. The extent of decline is again very pronounced in Gajapati, Kalahandi and Rayagada. Thus, it could be concluded that the phenomenon of dropout and wastage in case of girls accentuates further making the access aspect of UPE inequitous.

The predominance of rural population in the total population in all the five DPEP districts is reflected in the rural-urban composition of enrolment (Table 3.1.2). The proportion of rural children enrolled in the sampled schools is significantly higher than that of the urban children. The urban children constitute a bare less than one-fifth of the total enrolment in schools. Among the five DPEP districts, Dhenkanal has the highest percentage (17.5%) of urban children on roll followed by Rayagada (14.9%), the lowest being in Kalahandi (10.5%).

The proportion of students of different social categories i.e., SC, ST, OBC and general, varies from district to district (Table 3.1.3). The share of SC and ST students

Table 3.1.1

Total Enrolment and Percentage of Children In Schools (Genderwise)

District	Class	Boys	Girls
B a l a n g i r	I	53.83	48.17
	II	49.36	50.64
	III	57.40	42.60
	IV	60.82	43.18
	V	61.30	38.70
D h e n k a n a l	I	52.96	47.04
	II	57.47	45.63
	III	53.42	46.68
	IV	54.03	45.97
	V	54.43	45.57
G a j a p a l i	I	55.79	44.21
	II	59.51	40.49
	III	60.64	39.36
	IV	62.29	37.71
	V	66.77	33.23
K a l a h a n d i	I	51.42	48.58
	II	54.85	45.15
	III	57.40	42.60
	IV	62.72	37.28
	V	65.50	34.50
R a y a g a d a	I	53.00	47.00
	II	62.53	37.47
	III	56.49	43.51
	IV	60.65	39.35
	V	66.72	33.28

Table 3.1.2

Total Enrolment and Percentage of Children In Schools (Areawise)

District	Class	Rural	Urban
B a l a n g i r	I	84.51	15.49
	II	84.04	15.96
	III	75.80	24.20
	IV	80.22	19.78
	V	78.37	21.63
D h e n k a n a j	I	91.60	8.40
	II	65.84	34.16
	III	86.52	13.48
	IV	85.36	14.64
	V	83.29	16.71
G a j a p a l i	I	89.64	10.36
	II	87.32	12.68
	III	88.06	11.94
	IV	86.46	13.54
	V	81.57	18.43
K a l a h a n d i	I	93.61	6.39
	II	91.30	8.70
	III	91.54	8.46
	IV	86.24	13.76
	V	85.54	14.46
R a y a g a d a	I	85.27	14.73
	II	88.32	11.68
	III	85.52	15.48
	IV	83.96	16.04
	V	83.44	16.56

Table 3.1.3
Total Enrolment in Schools (Categorywise)

District	Class	SC	ST	OBC	Others	Total
Balangir	I	24.47	21.02	37.11	16.80	100.00
	II	24.73	14.51	31.43	24.33	100.00
	III	24.28	18.81	24.44	32.40	100.00
	IV	27.62	16.89	22.60	32.81	100.00
	Total	19.67	18.86	32.03	29.43	100.00
Dhenkanal	I	19.21	16.91	3.05	60.84	100.00
	II	19.91	10.70	3.25	66.14	100.00
	III	12.97	8.78	3.47	74.77	100.00
	IV	16.57	7.60	4.77	71.06	100.00
	Total	11.27	8.61	4.18	76.98	100.00
Gajapati	I	15.99	25.69	7.28	51.05	100.00
	II	12.85	23.41	6.83	56.91	100.00
	III	13.49	22.97	8.27	54.82	100.00
	IV	12.29	18.33	7.92	61.46	100.00
	Total	9.67	16.62	11.18	62.54	100.00
Kalahandi	I	28.53	37.09	25.75	8.63	100.00
	II	26.76	36.34	26.86	9.03	100.00
	III	25.81	35.13	30.32	9.73	100.00
	IV	28.22	29.44	28.40	13.49	100.00
	Total	27.69	30.17	25.62	16.53	100.00
Rayagada	I	30.39	26.74	17.17	25.70	100.00
	II	35.37	22.21	19.68	22.74	100.00
	III	27.20	21.76	21.03	30.02	100.00
	IV	25.12	20.40	23.63	30.85	100.00
	Total	19.94	19.79	23.01	37.27	100.00

taken together is the highest (57.9%) in Kalahandi district and lowest in Dhenkanal (19.9%). Children from OBC and other communities combinely represent a proportionately larger share of the total enrolment of schools with the singular exception of Kalahandi district. This could probably be explained partly by the relative share of SC and ST population in the total population, and partly by the higher "perceived value" of education by the parents of children from the OBC and "others" who have a build in proclivity to grab the benefits of development.

Class Size

Table 3.1.4 presents the position of average class size obtained during the academic session 1995-96.

Table 3.1.4
Average Class Size

Class	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
I	30.42	49.68	25.91	35.04	28.80
II	22.55	32.75	17.57	21.61	25.67
III	27.64	27.97	18.65	16.88	25.83
IV	18.42	25.17	13.71	13.66	21.72
V	13.66	22.57	9.45	11.52	17.62

It is revealed from the table that Dhenkanal district has, on an average, more number of students per class across grades I to V. The average class size is found to be larger in classes one and two and thereafter it progressively declines. Almost in all districts the average class size is below the prescribed norm of teacher-pupil ratio of 1:40. From economic point of view, the average

class size in grades IV and V appears to be nonviable. This position becomes more unacceptable when considered in the light of inconclusive relationship between class-size and instructional effectiveness.

Working Days in Schools

The number of working days scheduled for the academic session is an indicator of the effectiveness of teaching learning process. This is so because the school apparatus and available resources are put to use during the working days. Normally, the state government fixes the holidays with minor variation in the district. Therefore, in all probability the number of scheduled working days remains almost the same, irrespective of the location of schools across the state. The position with regard to the scheduled working days in the sampled primary schools is presented in Table 3.1.5.

Table 3.1.5

Percentage Distribution of Schools According to the Number of Working Days

Working Days	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
100 - 125	0.00	0.00	0.00	0.00	0.00
126 - 150	0.00	0.00	0.00	0.00	0.00
151 - 175	0.00	0.00	0.00	0.00	0.00
176 - 200	0.00	0.00	0.00	0.00	0.00
201 - 225	77.14	31.43	31.43	19.05	43.24
226 - 250	22.86	68.57	62.86	78.57	51.35
Above 250	0.00	0.00	5.71	2.38	5.41

It is evident that most of the schools (from 94.6 to 100%) function between 201 to 250 days in a year. None

of the sampled schools reports working days less than 200 days, the scheduled working days being officially fixed at 210 by the state government. Interestingly, it is observed that on an average about five percent schools reported working on more than 250 days in an academic session which is inexplicable.

Infrastructural Facilities

School Building and Classrooms

Almost all sampled primary schools operate invariably operate in buildings owned by them. With regard to availability of building, there is practically no variation among schools (Table 3.1.6).

Table 3.1.6
Percentage of Schools on the Basis of Building Ownership

Type	Bolangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Own Building	95.56	100.00	91.43	97.62	94.59
Rented Building	0.00	0.00	0.00	0.00	0.00
Rent Free Building	4.44	0.00	8.57	2.38	5.41

This is because all the schools are government managed schools. With the only exception, schools in Dhenkanal, in other four districts, a small percentage of schools function in rent free buildings, the highest being in Gajapati (8.6%) followed by Rayagada (5.4%), Bolangir (4.4%) and Kalahandi (2.4%). Rent free buildings are either provided by the government or by the community. This position reflects the participation and involvement of community, though on a very small scale, in providing and monitoring accommodation for schools. This favourable scenario does not, however, indicate the type of building

the schools operate in. The substantive state of provision of building facilities could be assessed only from the availability of rooms in schools.

Table 3.1.7 presents the position with regard to availability of classrooms in sampled schools.

In consideration of five-class primary schools in the state, schools in Dhenkanal are better placed with regard to availability of rooms to hold classes. The percentage of schools having five and more than five classrooms in this district come to 41.1. The position of Rayagada (40.5%) in this regard is almost comparable to Dhenkanal. The situation is found to be deplorably unmanageable in Kalahandi : almost 60 percent of schools have only one to two rooms. Again more than four percent of schools in Balangir and two percent schools in Kalahandi do not have classrooms. Differences are evident from schools possessing four or less than four rooms: Balangir (71%), Dhenkanal (69%), Gajapati (66%), Kalahandi (69%) and Rayagada (59%). Nearly 30 percent schools in the sampled districts have two classrooms. This might be due to the provision provided for under OR.

The unmet need of schools for additional rooms is clearly perceptible from Table 3.1.9. All the sampled schools of five districts desired to have more classrooms to meet the increasing demand for more space for students and teachers.

Distance

Table 3.1.8 presents the location of schools in relation to other educational institutions. Location of Primary schools in terms of proximity to other educational institutions has a number of advantages. As could be seen from table, in all the districts, most of the primary schools are located within a distance of 1 to 5 kms from the nearest institutions (Anganwadis, Balwadis and pre-school) offering pre-school facilities. More than 80 percent of primary schools in all the DPEP districts have, without exception, primary schools in the neighbour-

Table 3.1.7
Percentage of Schools According to Number of Classrooms

No. of Class Rooms	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Zero	4.44	0.00	0.00	2.38	0.00
One	24.44	2.86	20.00	21.43	8.11
Two	13.33	31.43	37.14	38.10	29.73
Three	28.89	22.86	5.71	17.67	18.92
Four	0.00	11.43	2.86	9.52	2.70
Five	15.56	28.57	25.71	4.76	24.32
More than Five	13.33	12.86	8.57	7.14	16.22

Table 3.1.8
Proximity to Other Schools

Name of the Place	Distance from the school (in Kms)	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
I Nearest Anganwadi/ Balwadi/Pre School	1-5	55.56	22.86	77.14	42.86	51.39
	6 and above	0.00	0.00	0.00	2.38	0.00
	Negligible	44.44	77.14	22.86	54.76	48.65
II Nearest Primary School	1-2	55.56	74.29	80.00	69.05	111.78
	3 and above	24.44	22.86	14.29	28.57	2.70
	Negligible	20.00	2.86	5.71	2.38	13.51
III Nearest U.P School	Negligible	17.78	37.14	5.71	14.29	8.11
	1-2	33.33	31.43	54.29	45.24	67.57
	3-4	33.33	17.14	25.71	26.19	21.62
	5 and above	15.56	14.29	14.29	14.29	2.70
IV Nearest High School/ Hr. Sec. School.	Negligible	17.78	17.14	2.86	2.38	8.11
	1-5	68.89	65.71	82.86	57.14	83.78
	6 and above	13.33	17.14	14.29	30.48	8.11
V. Block Headquarter	1-10	31.11	25.71	42.86	45.24	62.16
	11-20	55.56	51.43	31.43	28.57	24.32
	21 and above	13.33	22.86	25.71	26.19	13.51
VI. Nearest Traditional School (Madrassa etc.)	Negligible	91.56	100.00	88.57	73.81	89.18
	1-5	4.44	0.00	5.71	4.76	8.11
	6-10	0.00	0.00	0.00	9.52	2.70
	10 and above	0.00	0.00	5.71	11.90	0.00

Table 3.1.9
Percentage of Schools Requiring Additional Classrooms

No. of Class Rooms	Balangir	Dhenkanai	Gajapati	Kalahandi	Rayagada
Zero	0.00	2.86	11.43	4.76	2.70
One	6.67	25.71	17.14	7.14	10.81
Two	33.33	31.43	20.00	11.90	18.92
Three	28.89	34.29	28.57	35.71	57.35
Four	15.56	2.86	14.29	23.81	8.11
Five	13.33	2.86	8.57	16.67	5.41
More than Five	2.22	0.00	0.00	0.00	2.70

75

hood within a distance of one-to-two kms. Almost two thirds of primary schools across the districts have upper primary schools within a radius of one-to-two kms, whereas around 15 percent of primary schools have upper primary schools at a distance of more than five kms, only exception being Rayagada. Another favourable feature is that most of the primary schools have high schools within a radius of five kms.

This locational situation of primary schools in relation to other educational institutions will of immense help in planning cluster resource centre (CRC) in DPEP districts.

Essential Facilities

Provision for safe-drinking water, toilet facilities, separate toilet facilities for girls and electric connection are considered essential facilities for primary schools.

Table 3.1.10
Percentage of Schools Having Essential Facilities

Facilities	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Safe Drinking Water	8 17.78	7 20.00	11 31.43	6 14.29	16 43.24
Toilet Facilities	9 20.00	1 2.89	3 8.57	2 4.76	10 43.24
Separate Toilet Facilities for Girls	4 8.89	0 0.00	1 2.86	1 2.38	14 37.83
Electric Connection for the Schools	4 8.89	7 20.00	9 25.71	7 16.67	12 32.43

As could be observed from the Table 3.1.10, the availability of safe-drinking water in primary schools of the districts is in descending order in Rayagada (43.24%)

Gajapati (31.43%), Dhenkanal (20%) and Balangir (17.78%). Viewed from a comparative perspective, Rayagada district has a distinct advantage over four other districts in terms of availability of these four essential facilities in schools : the percentage of schools having the facilities respectively are - 43.24%, 43.24%, 37.83% and 32.43%. Almost absence of provision for separate toilets for girls is very common in all districts except Rayagada. comparatively the situation with regard to electric connection to schools, is better than toilet facilities. In short, the overall situation with regard to the availability of the four essential facilities seems to be unsatisfactory in Balangir, Dhenkanal, Gajapati and Kalahandi.

Furniture and Equipments

Chairs and tables for teachers are the most important and common furniture expected to be reasonably available in schools. They are available in a modest way in more than 50 percent of schools. In terms of relative position of districts, the situation in Kalahandi has enough scope for improvement. The facility for dustbins and notice boards are poor except Rayagada.

Teacher effectiveness is dependent, to a large extent, on the availability instructional aids like maps, charts, globes, science kit, mathematics kit and mini tools kit, in addition blackboard and chalk and duster. Field interactions with teachers reveal that the single longest category of sampled schools belonged to "poor category" and a handful of schools belonged to "average" category". Therefore, the intervention that is warranted has three aspects : first, to provide the majority of schools with essential instructional aids; second, to make optimum utilization of teaching aids wherever they are available and third, providing teachers with training to prepare low-cost and no-cost teaching aids and to use them optimally for effective teaching-learning process.

Table 3.1.11

Percentage of Schools with Furniture and Equipment

Items	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Chair for Teacher	3 17	22 34	26.05	26 83	19 82
Tables for Teacher	28.57	19.15	27.73	17.07	15.32
Water Pitcher & Lady Glass	17.46	20.21	10.92	23.17	17 12
Dustbin	7 94	1 06	7.56	0 00	14 41
School Bell	25 40	32.98	24.37	23.17	18 02
Pin-Up Board / Notice Board	17 46	4 26	3 36	6.76	15 32

Provision for Co-curricular Activities

Games/musical instruments and play materials are essential to organise cocurricular activities in schools in order to develop the noncognitive affective and psychomotor competencies in learners. Table 3.1.12 reveals the overall situation with regard to existence or otherwise of facilities. In more than half of the schools except Kalahandi (19.05%) in Balangir, Dhenakanal, Gajapati and Rayagada toys are found to be available. Gajapati district is fortunate to have facilities of play materials in nearly 75 percent of the sample schools. A similar situation is obtained in schools of all five districts with regard to game equipments. Kalahandi district lags way behind the other districts on the stated parameters. this overall relatively favourable situation could be attributed to the implementation of OB scheme in these districts.

Table 3.1.12

Availability of Facilities for Play and Games

Items	Bolangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Play Material Toys	25 55.56	18 51.43	26 74.29	8 19.05	19 51.35
Game Equipments	21 46.67	18 51.43	21 60.00	5 11.90	19 51.35
Musical Instruments	11 24.44	19 54.29	5 14.29	3 07.14	14 37.84

The situation in respect of availability of play-ground in schools is indeed very poor and discouraging. Out of 194 sampled schools of all five districts, only 65 schools representing only one-third (33.5%) have play-

grounds. In terms of the location of playground, it is evident from Table 3.1.13 that in case of 38 schools i.e., 58.5 percent schools playground facilities are available within the school premises.

Table 3.1.13
Percentage of Schools having Playground

Description	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Playground facilities (away from school premises)	7 15.6	3 8.6	3 8.6	2 4.8	12 32.4
Playground within the school premises	9 20.9	8 22.9	7 20.0	4 9.5	10 27.0

Medical Facilities

Good health of children is an essential pre-requisite for allround development of children. High infant and child mortality rate is a concomitant outcome of poor child health care both at home and at school. This is evident from Table 3.1.14.

Table 3.1.14
Percentage of Schools with Health Facilities

Items	Bolangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Annual Medical Checkup	9 20.00	15 42.86	19 54.29	9 21.43	10 27.03
Immunization Facility	11 24.44	22 62.86	19 54.29	11 28.19	13 36.14
First Aid Kit	5 11.11	2 5.71	3 8.67	0 0.00	12 32.43

With regard to annual medical check-up, Dhenkanal and Gajapati districts are relatively fortunate to have annual medical check-up in about 50 percent of their schools. An almost identical situation is found to exist in respect of facility for immunization. Availability of "first aid kit" is almost non-existent in four districts with singular exclusion of Rayagada.

Pupil-Teacher Ratio

Quite a few studies have found the inverse relationship between class-size and school effectiveness, defined in terms of learner achievement. Position with regard to apparent pupil teacher ratio (APR) and effective pupil-teacher ratio (EPR) has been presented in Table 3.1.15.

Table 3.1.15
Teacher Pupil Ratio

Items	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Apparent Pupil Teacher Ratio (APR)	11	33	15	4	10
Effective Pupil Teacher Ratio (EPR)	33	44	42	11	32

Apparent pupil-teacher ratio i.e. number of pupils to the number of sanctioned posts irrespective of filled in or not of the schools for Balangir, Dhenkanal, Gajapati, Kalahandi and Rayagada are 11, 33, 15, 04, and 10 respectively. The effective pupil teacher ratio is, on the other hand, calculated on the basis of actual number of teachers holding posts in schools and number of pupils on roll. Naturally, therefore, EPRs compared to APRs are higher in all the districts : Balangir(33), Dhenkanal(44),

Gajapati (42), Kalahandi (11) and Rayagada (32). The gap between APRs and EPRs indicate that a large number of posts lying vacant needs to be filled up. The discrepancy in respect of Dhenkanal is relatively low.

Vacant Position of Teachers

In addition to the requirement of basic infrastructure, provision of required number teachers, i.e. atleast one teacher for each class, is essential for effective functioning of schools. It is evident from Table 1.1.16 that no vacancy exists in more than three-fourth of schools of Balangir, Gajapati and Rayagada districts. Number of schools, cutting across the districts, having one vacant post of teachers is found to be large. On an average, in more than 23 percent of schools of the five districts one post of teacher is lying vacant. In Kalahandi, the percentage of schools having vacancies between one to three posts comes to 47.5. The situation compels teachers and educational managers to have the practice of multi-grade teaching. If quality of learner achievement is to be improved and MLL strategy is to be adopted, the vacancies need to be immediately filled up.

Community Contribution

The extend of support to primary schools by the community has been presented in Table 3.1.17. It is revealed from the table that more than three-fourths (77.32%) of schools in all the districts receive no contribution from the community. This is due primarily to the fact that all the primary schools in the sample are government schools drawing sustenance almost entirely from government sources. However, at a disaggregative level, the government support varies from 72.9 percent in Rayagada to 88.0 percent in Kalahandi. The extent of community support is the highest(26.67%) in Balangir and lowest (11.9%) in Kalahandi district. It appears from the table that schools are suffering from a dependency syndrome and do not explore the possibilities of mobilising community support for their effective functioning.

Table 3.1.16
Percentage of Schools with Vacant Post of Teachers

Vacant Post	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
0	34 (75.56)	23 (65.71)	27 (77.14)	20 (47.62)	28 (75.68)
1	9 (20.00)	10 (28.57)	6 (17.14)	14 (33.33)	5 (13.51)
2	2 (04.44)	2 (05.71)	1 (2.86)	3 (07.14)	2 (05.40)s
3	0 (0.00)	0 (0.00)	1 (2.86)	3 (07.04)	0 (0.00)
Above 3	0 (0.00)	0 (0.00)	0 (0.00)	2 (04.76)	2 (05.40)

Table 3.1.17
Percentage of Schools Receiving Community Contribution

Incentives (In Rupees)	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
No Contribution	33 (94.29)	27 (77.14)	26 (74.29)	37 (88.10)	27 (72.97)
1-500	3 (08.57)	2 (05.71)	3 (11.43)	4 (09.52)	3 (8.11)
501-1000	0 (0.00)	2 (05.71)	1 (2.86)	1 (02.38)	0 (0.00)
1001-1500	0 (0.00)	0 (0.00)	2 (5.71)	0 (0.00)	2 (5.41)
1501-2000	1 (02.86)	0 (0.00)	1 (02.86)	0 (0.00)	1 (2.70)
Above 2000	8 (22.86)	4 (11.43)	1 (2.86)	0 (0.00)	4 (10.81)

Section II

Teachers and Teaching Learning Process

Teacher performance is the most crucial input in the field of education. Teacher characteristics, their professional competence and commitment, orchestration and monitoring of teaching learning process, management of schools, etc. have great bearings on the performance of teachers, and consequently, on learner achievement. Teacher attributes and performance are particularly more important at the primary level, the base of the educational pyramid. Therefore, this section is devoted to an indepth discussion of teacher characteristics and their role as managers of teaching-learning process. Their role as manipulators of the dynamic and malleable variables has been focussed in the analysis of data collected from teachers included in the sample.

Personal Characteristics

The sample consists of 523 teachers and 190 headmasters drawn from 194 schools. The composition of the sample in terms of sex, place of residence (urban-rural), and caste (SC,ST,OBC and others) has been depicted in Table 3.2.1. The following features emerge from the analysis of data furnished in the tables :

- The cadre of teachers is dominated by a disproportionately large proportion of male teachers in all five districts : the range being limited to 66.3 percent in Gajapati at the lowest end and 80.0 percent in Rayagada at the highest. This position makes it clear that the representation of female teachers is not to an appreciation level, even though the government's avowed policy is to accord preference to appointment of female teachers. Gajapati district has relatively more number of female teachers. In Gajapati, the number of female teachers is more than one-third of their counterparts.

Table 3.2.1
Percentage Distribution of Sample Teachers

District	Male	Female	Rural	Urban	SC	ST	OBC	Others
Balangir	77.19	22.81	86.14	13.16	6.14	12.28	3.09	46.49
Dhenkanal	75.49	24.51	87.25	12.75	6.86	11.76	7.84	73.53
Gajapati	66.33	33.67	83.67	16.33	7.14	17.35	12.24	63.27
Kalahandi	81.00	19.00	92.00	8.00	13.33	7.78	34.44	44.44
Rayagada	79.82	20.18	81.65	18.35	5.50	11.01	12.84	70.64

Table 3.2.2

Percentage Distribution of Teachers (Gender and Age-wise)

District	Age Group (in years)	Number of Teachers		
		Male	Female	Total
Balangir	Below 25	5.68	0.00	4.39
	25 to 29	4.55	23.08	8.77
	30 to 34	14.77	34.62	19.30
	35 to 44	19.32	38.46	26.68
	45 and above	55.68	3.85	43.86
Dhenkanal	Below 25	5.19	0.00	3.92
	25 to 29	9.09	16.00	10.78
	30 to 34	9.09	24.00	12.75
	35 to 44	16.88	40.00	22.55
	45 and above	59.74	20.00	50.00
Gajapati	Below 25	1.54	3.03	2.04
	25 to 29	4.62	3.03	4.08
	30 to 34	13.85	36.36	21.43
	35 to 44	26.15	42.42	31.63
	45 and above	53.85	15.15	40.82
Kalahandi	Below 25	1.23	10.53	3.00
	25 to 29	2.47	15.79	5.00
	30 to 34	14.81	47.37	21.00
	35 to 44	41.98	27.32	39.00
	45 and above	39.51	0.00	32.00
Rayagada	Below 25	0.00	0.00	0.00
	25 to 29	3.45	27.27	8.26
	30 to 34	16.09	27.27	18.35
	35 to 44	35.63	40.91	36.70
	45 and above	44.83	4.55	36.70

- The sample included a disproportionately large number of teachers from rural areas. This position is due mainly to the fact that rural schools in the sample substantially outnumber the urban schools.
- Teachers from the combined caste category i.e., 'OBC and 'others' form a sizeable segment of the total sample of teachers. The predominance of ST population in all districts, barring only Dhenkanal, calls for a fresh look at increasing the number of teachers from ST communities.

Distribution of teachers by age-group (Table 3.2.2) shows almost a uniform pattern. The youngest age-group i.e., less than 25 years of age constitutes the smallest group of teachers. Teachers of the age-bracket 45 and above constitute the single largest group followed by the age-group 35-44. In other words, the teachers of the sampled schools are relatively experienced. One of the disadvantages of having more aged and experienced teachers is that they tend to cling to conventional methods and resist change. With the singular exception of Gajapati, in all other districts, the proportion of women teachers of the prime age-group (25 to 29) has an edge over their male counterparts.

General and Professional Qualifications

The profile of sample teachers in terms of their educational qualifications with male-female and urban-rural break-up has been presented in Table 3.2.3 and 3.2.4. The following features become pronounced :

- The proportion of teachers who are under-qualified i.e., having qualifications less than prescribed norm (matriculation) across the districts accounts for nearly 18 percent of the total number teachers.
- More than one-third (35.7 %) of teachers possess prescribed general qualifications i.e., matriculation. Similarly, nearly 30 percent of teachers

**Percentage Distribution of Teacher According to Educational Level
(Genderwise)**

	Balangir			Dhenkanal			Gajapati			Kalahandi			Rayagada		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
8th Class	20 22.73	1 3.85	21	19 22.89	5 20.00	24	15 23.08	1 3.03	16	12 14.81	0 0.00	12	17 19.54	2 9.09	19
Secondary	33 37.50	6 23.08	39	33 46.99	5 20.00	38	30 46.15	13 39.39	43	25 30.86	4 21.05	29	31 35.63	6 27.27	37
Higher Secondary	26 29.55	9 34.62	35	19 22.89	5 20.00	24	8 12.31	7 21.21	15	37 45.68	10 52.63	47	26 29.89	10 45.45	33
Degree	8 9.09	9 34.62	17	6 7.23	8 32.00	14	11 16.92	9 27.27	20	5 6.17	4 21.05	9	13 14.94	3 13.64	16
Post-Graduate	1 1.14	1 3.85	2	0 0.00	2 8.00	2	1 1.54	3 9.09	4	2 2.47	1 5.26	3	0 0.00	1 4.55	1

Table 3.2.4
Percentage Distribution of Teacher According to Educational Level
(Locationwise)

District	Qualification	Rural	Urban	Total
Balangir	8th Pass	21.21	0.00	18.42
	Matriculation	36.36	20.00	34.21
	Hr. Secondary	25.25	66.67	30.70
	Graduation	15.15	13.33	14.91
	Post-graduation	2.02	0.00	1.75
Dhenkanal	8th Pass	25.84	7.69	23.53
	Matriculation	37.08	38.46	37.25
	Hr. Secondary	24.72	15.38	23.53
	Graduation	12.36	23.08	3.73
	Post-graduation	0.00	15.38	1.96
Gajapati	8th Pass	18.29	6.25	16.33
	Matriculation	46.34	31.25	43.88
	Hr. Secondary	12.20	31.25	15.31
	Graduation	18.29	31.25	20.41
	Post-graduation	4.88	0.00	4.08
Kalahandi	8th Pass	11.96	12.00	12.00
	Matriculation	58.26	37.50	29.00
	Hr. Secondary	48.91	25.00	47.00
	Graduation	7.61	25.00	9.00
	Post-graduation	3.26	0.00	3.00
Rayagada	8th Pass	14.61	30.00	17.43
	Matriculation	37.08	20.00	33.94
	Hr. Secondary	32.58	35.00	33.03
	Graduation	14.61	15.00	14.68
	Post-graduation	1.12	0.00	0.92

have studied beyond matriculation level i.e., upto Higher Secondary. Taken together, these two groups of teachers constitute more than 60 percent of total corpse of teachers. The range being from 59.17 percent in Gajapati to 76 percent in Kalahandi.

Table 3.2.5 presents the distribution of primary school teachers on the basis of type and level of professional training they have undergone. Among the teachers who possess qualifications in teacher training, majority of them, male and female teachers, have Elementary Teacher Training Course. However, a higher percentage of female teachers possess higher professional training qualification such as B.Ed. A phenomenon, observed not infrequently, in Orissa like other states is that greater proportion of women teachers persevere to upgrade their general and professional qualifications during their teaching career.

With regard to professional qualification possessed by teachers on the basis of rural-urban break-up, no significant pattern emerges. This could be explained by the fact that an uniform process of selection for recruitment of teachers is followed with the over-riding emphasis on prescribed minimum qualification. Moreover, primary school teachers are transferred from rural areas to urban areas and vice versa disregard of their qualifications.

In-service teacher training is considered to be the weakest link of our teacher training programme. Teachers need recurrent training to update and enrich their subject knowledge and teaching competencies. The need for inservice training felt by teachers is an indication of the inadequacy, irrelevance and outdatedness of their pre-service training experience. About half of the total number teachers of Balangir, Dhenkanal, Gajapati and Kalahandi expressed their desire for undergoing inservice training (Table 3.2.6),

Table 3.2.5

Percentage Distribution of Teachers According to Professional Training

District	Teachers Training	Genderwise			Locationwise		
		Male	Female	Total	Rural	Urban	Total
Dhenkanal	Primary/ Elementary Teacher Certificate/ Diploma	82.05	68.97	78.5	71.02	18.25	78.5
	Graduate Trained (B Ed. or Equivalent)	17.95	24.14	19.63	19.78	18.75	19.63
	M.Ed. & above	0	6.9	1.87	2.2	0	1.87
Rayagada	Primary/ Elementary Teacher Certificate/ Diploma	92.75	73.08	87.37	88.89	78.57	87.37
	Graduate Trained (B Ed. or Equivalent)	7.75	26.92	12.63	11.11	21.43	12.63
	M.Ed. & above	0	0	0	0	0	0
Kalahandi	Primary/ Elementary Teacher Certificate/ Diploma	90.32	77.14	85.57	112.72	100	85.57
	Graduate Trained (B.Ed. or Equivalent)	9.68	22.86	14.43	17.28	0	14.43
	M Ed. & above	0	0	0	0	0	0
Balangir	Primary/ Elementary Teacher Certificate/ Diploma	94.74	68.42	89.47	90.8	75	89.47
	Graduate Trained (B.Ed. or Equivalent)	5.26	26.32	9.47	8.05	25	9.47
	M.Ed. & above	0	5.26	1.05	1.15	0	1.05
Gajapati	Primary/ Elementary Teacher Certificate/ Diploma	89.02	83.33	88	87.65	89.47	118
	Graduate Trained (B Ed. or Equivalent)	10.98	16.67	12	12.35	10.53	12
	M.Ed. & above	0	0	0	0	0	0

Table 3.2.6

**Percentage of Teachers Desiring
Inservice Training**

District	Percentage
Balangir	43.85
Dhenkanal	53.92
Gajapati	46.94
Kalahandi	49.20
Rayagada	63.30

Instructional Facilities

Availability of essential facilities in schools has considerable bearing on the performance of teachers. Teaching-learning process in schools cannot be conceived of without certain essential facilities like blackboard, duster, chalk, teachers' table, and cup-board. These are classical instructional facilities. On the basis of analysis of data collected from the field, following conclusions could be drawn :

- Three essential instructional items like black-board, duster and chalk are almost universally available to schools irrespective of their rural-urban location.
- Inter-district variation is almost non-existent indicating the indispensibility of these classical facilities.
- However, with regard to the availability of cupboards, on an average, only one-fifth of primary schools across the DPEP districts has the privilege of having cupboards. Minimal variation exists inter-district in respect of this item.

A similar level of provision of teaching aids is found to exist in primary schools of all the project districts (Table 3.2.7).

Table 3.2.7

Percentage of Teachers Reporting Availability of Teaching Aids

Teaching Aid	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Teachers Guide	86.80	39.20	77.60	59.00	64.20
Dictionary	97.40	99.00	87.80	81.00	85.30
Map	97.40	98.00	62.20	88.00	92.70
Globe	93.90	94.10	88.80	81.00	86.20
Charts	93.00	91.20	90.00	71.00	71.60
Flash Cards	91.20	58.80	85.70	41.00	45.00
Science Kit	90.40	88.20	63.30	60.00	75.20
Mathematics Kit	88.60	84.30	87.80	67.00	80.70
Others	61.40	36.30	88.80	19.00	18.30

Contrary to the common observation based entirely on the general poverty and backwardness of the state, it is revealed that teaching aids like teachers' handbooks, dictionary, maps, globes and charts are available universally in schools of the five districts with slight inter-district variations. Almost 90 percent of schools possess these basic teaching aids. Probably, this favourable situation could be explained partly by the supply of materials to schools coming under the purview of OB, and partly by the preferential treatment accorded to the KBK districts which include Balangir, Kalahandi and Rayagada, three out of the five DPEP districts. Another development that might have contributed to this relatively bright situation is the Anandamaya Siksha training programme launched by Unicef in Orissa.

Teaching-Learning Process

Teaching pattern in schools is decided largely by a number of static and dynamic variables. Availability of teachers, provision of classrooms, viability of class size, etc. invariably dictates teacher to select the pattern of teaching and mechanics of classroom management. The compulsions that make schools to adopt multigrade teaching strategies include, more often then not, are (i) non-availability of required number of teachers in schools; (ii) absence of classrooms to accommodate children; and (iii) small-sized classes which are not economically viable and sustainable.

Practice of Multigrade Teaching

Districtwise variations though, not very wide, are perceptible with regard to practice of multigrade teaching, as reported by the sample teachers (Table 3.2.8).

Table 3.2.8
Teaching Practice in Multigrade Situation

Districts	Simultaneous Teaching	Number of Teachers					
		Male		Female		Total	
Balangir	Yes	66	57.89	7	0.14	73	64.04
	No	22	19.30	19	16.67	41	35.96
Dhenkanal	Yes	42	41.18	9	8.82	51	50.00
	No	35	34.31	16	15.69	51	50.00
Gajapati	Yes	42	42.86	21	21.43	63	64.29
	No	23	23.44	12	12.34	35	35.71
Kalahandi	Yes	49	48.51	9	8.91	58	57.43
	No	33	32.67	10	9.90	43	42.57
Rayagada	Yes	46	42.20	6	5.50	52	47.71
	No	41	37.61	16	14.68	57	52.29

Multigrade teaching is practised in almost 51 percent of schools across five DPEP districts. The extent of practice of multigrade teaching is lowest in Rayagada (47.7%) and highest in Gajapati. When the prevalence of multigrade teaching practice by teachers is viewed from the gender perspective, it is found that involvement of male teachers in multigrade teaching setting is more pronounced than that of female teachers. In case of Gajapati district, the extent of involvement of female teachers is relatively higher compared to other districts.

Probing a little deeper into the mechanics of multigrade teaching, about 50 percent teachers reported engaging the other groups in copying from books/notes. Non-adoption of the practice of "peer tutoring" is indeed disturbing for it goes against the more-often observed practice. Two activities namely "copy work" and "wait, work on their own play" constitute together the single largest activity that teachers get the non-targetted children engaged in. The situation obtained calls for an a fresh look at the mechanism of facilitating peer tutoring, group work and self-learning which tend to make learning more effective and sustainable.

Time spent on Teaching Activity

Learning outcome, research evidence suggests, is a function of the quantum of effective time spent on a learning task. The teachers were asked to rank the activities related to teaching on which they spend maximum time.

The ranks assigned to different activities by the teachers on a descending rank order scale (as first, second, third, fourth and fifth preference) have been shown in Table 3.2.9.

Table 3.2.9

Ranking of Teaching Activities by Time Spent

Teaching Activities	Preference in Time Allocation					Total	
	1st	2nd	3rd	4th	5th		
BALANGIR							
	Planning and class Preparation	17.05	20.22	14.38	31.46	16.89	100
	Homework & Test correction	35.91	45.36	08.23	02.79	07.71	100
	Holding extra classes	65.32	20.91	03.52	07.11	03.14	100
	Giving Tuition	12.33	10.22	20.27	20.79	36.39	100
Providing feedback	22.57	15.34	41.98	10.15	09.96	100	
DHENKANAL							
	Planning and class preparation	05.39	10.91	25.39	40.05	18.26	100
	Homework & test correction	15.04	37.23	18.46	19.99	09.28	100
	Holding extra classes	52.57	15.18	06.32	14.27	11.66	100
	Giving Tuition	11.55	25.75	18.87	15.03	29.96	100
Providing feedback	12.55	19.37	39.11	10.00	18.97	100	

Contd..

Table 3.2.9 (Contd)

Teaching Activities	1st	2nd	3rd	4th	5th	Total
		GAJAPATI				
Planning and class preparation	12.36	22.57	41.22	15.39	08.46	100
Homework & Test correction	31.93	36.00	17.89	07.18	07.00	100
Holding extra classes	58.77	24.98	07.33	03.39	05.53	100
Giving Tuition	21.78	14.37	10.10	39.67	14.08	100
Providing feedback	17.01	28.23	08.77	18.03	27.96	100
		KALAHANDI				
Planning and class preparation	15.52	19.37	07.76	50.11	07.24	100
Homework & Test correction	09.87	29.71	28.14	20.56	11.72	100
Holding extra classes	60.35	16.67	07.66	02.93	12.39	100
Giving Tuition	11.24	32.39	09.90	05.36	41.11	100
Providing feedback	12.23	23.39	36.55	18.50	09.33	100
		RAYAGADA				
Planning and class preparation	21.33	25.71	19.66	29.83	03.47	100
Homework & Test correction	26.23	39.54	15.29	09.37	09.67	100
Holding extra classes	57.55	11.65	08.88	11.93	10.99	100
Giving Tuition	18.73	22.87	34.36	15.42	18.62	100
Providing feedback	11.63	19.03	25.78	12.89	33.67	100

As evident from the Table above, nearly 65 percent of teachers in Balangir, 53 percent in Dhenkanal, 59 percent in Gajapati, 60 percent in Kalahandi and 58 percent in Rayagada report that they spend maximum time on holding extra classes for children as a major measure of providing assistance. Correspondingly, more than 10 percent of teachers in Balangir, 26 percent in Dhenkanal, nine percent in Gajapati, 15 percent in Kalahandi and 22 percent in Rayagada report that a very little time or no time is spent on this activity. The next activity in order of importance is found to be homework and test correction that consumes the second maximum amount of time of a large majority of teachers. The least preferred activity to receive minimal amount of instructional time is identified to be planning and class preparation. Common, but careful observation, amply attests this empirical evidence. However, planning and preparation for teaching is a crucial pedagogical input which should receive the magnitude of priority it deserves.

Use of Textbooks and Teaching Materials

While teaching in classroom, teachers make use of textbooks and specially prepared materials. The extent of use of textbooks and specially prepared materials in teaching language and mathematics by gender has been reflected in Table 3.2.10. In general, teachers use textbooks more frequently and for longer duration of time while teaching language than while teaching mathematics. This trend could be deciphered from the Table. In all the districts, textbook is heavily relied upon while teaching language (Oriya). On the other hand, while teaching mathematics, specially prepared materials more frequently and more extensively used. The extent of use of specially prepared materials in teaching language is minimal. Therefore, the action point that emerges is that in-service training programme should concentrate on developing and using such materials.

Table 3.2.10

Percentage of the use of Text books and teaching materials (Genderwise)

District	Options	Language			Mathematics		
		Male	Female	Total	Male	Female	Total
Balangir	Textbooks	82 93.18	22 84.62	104	59 67.05	13 50.00	72
	Specially Prepared materials	5 5.68	4 15.38	9	24 27.27	9 34.62	33
	Do not teach these subjects	1 1.14	0 0.00	1	5 5.68	4 15.38	9
Dhenkanal	Textbooks	67 87.01	19 76.00	86	41 53.25	15 60.00	56
	Specially Prepared materials	6 7.79	5 20.00	11	36 46.75	10 40.00	46
	Do not teach these subjects	4 5.19	1 4.00	5	0 0.00	0 0.00	0
Gajapati	Textbooks	61 93.85	32 96.97	93	53 81.54	25 78.79	79
	Specially Prepared materials	2 3.08	0 0.00	2	12 18.46	6 18.18	18
	Do not teach these subjects	2 3.08	1 3.03	3	0 0.00	1 3.03	1
Kalahandi	Textbooks	70 86.42	19 100.00	89	41 50.62	40 81.63	51
	Specially Prepared materials	7 8.64	0 0.00	7	35 43.21	8 16.33	43
	Do not teach these subjects	4 4.94	0 0.00	4	5 6.17	1 2.04	6
Rayagada	Textbooks	79 90.80	20 90.91	99	72 82.76	19 86.36	91
	Specially Prepared materials	2 2.30	1 4.55	3	11 12.64	2 9.09	13
	Do not teach these subjects	6 6.90	1 4.55	7	4 4.60	1 4.55	5

Teachers use a variety of materials while teaching different subjects in the class. They were asked to indicate as to who prepared the teaching materials they make use of in the classroom. The data obtained from the structured interview have been presented in Table 3.2.11. The following broad trends among the districts have evolved :

- Except Gajapati, in all other districts more teachers prepare teaching materials. To be more specific, about 58.6 percent of teachers in Balangir, Dhenkanal, Kalahandi and Rayagada report that they prepare teaching materials for use in teaching. Self-designed teaching materials and teaching materials provided by school together are used by almost all teachers. There are only 1.02 to 14.0 percent teachers reporting use of student-prepared teaching materials. A similar pattern is found in case of teachers from rural areas.
- Gender variation is exhibited in the use of self-prepared teaching materials. Higher percent of women teachers report that they use teaching materials prepared by them. This indicates the genuine involvement of women teachers in teaching learning process and in developing low-cost and no-cost teaching aids.

It is a fact that textbook is the only teaching-learning material that is possessed practically by all children. Moreover, textbook is the most valued material for the child to refer to at home. Table 3.2.12 deals with information on the purpose for which textbooks are used by teachers in the classroom.

It is evident from the table that almost all teachers use textbooks with implied intention of covering the prescribed syllabus in preference to making children learn. The analysis also reveals that to read by taking recourse to conventional and arm-chair practice of asking children to read aloud, to read on their own in the absence of teacher, and constantly reading out from the textbook,

Table 3.2.11

Teachers Reporting Preparation of Teaching Materials

District	Preparation of Teaching Materials	Genderwise			Locationwise		
		Male	Female	Total	Rural	Urban	Total
Balangir	Self	61.36	73.08	64.04	64.65	60.00	61.00
	Students	13.64	7.69	12.28	12.12	13.33	12.28
	Provided by School	10.23	14.23	2.63	11.11	20.00	12.28
	Any other	3.41	0.00	2.63	3.03	0.00	2.63
	NA	11.36	0.00	9.77	9.09	6.67	8.77
Dhenkanal	Self	50.62	44.00	50.98	58.33	73.08	50.98
	Students	4.94	8.00	5.88	7.14	0.00	5.88
	Provided by School	50.93	32.00	28.43	29.76	30.77	28.43
	Any other	4.94	0.00	0.00	0.00	0.00	0.00
	NA	13.58	16.00	14.71	4.76	46.15	14.71
Gajapati	Self	35.38	42.42	37.76	40.24	15.38	37.76
	Students	0.00	3.03	1.02	0.00	3.85	1.02
	Provided by School	35.38	21.21	36.61	28.05	26.92	30.61
	Any other	4.62	3.03	4.88	3.66	3.85	4.08
	NA	24.62	30.30	20.53	28.05	50.00	26.53
Kalahandi	Self	62.96	57.89	62.00	59.75	87.50	62.10
	Students	12.35	21.05	14.00	15.22	0.10	14.10
	Provided by School	9.88	10.53	10.00	10.87	0.00	10.00
	Any other	1.23	0.00	1.00	1.09	0.00	1.00
	NA	13.58	10.53	13.00	13.04	12.50	13.00
Rayagada	Self	59.77	72.73	61.32	61.80	65.00	62.39
	Students	6.90	0.00	5.66	4.98	10.00	5.50
	Provided by School	20.69	18.18	20.75	19.10	21.00	20.18
	Any other	4.60	4.55	4.72	5.62	0.00	4.69
	NA	8.05	4.55	7.55	8.99	0.00	7.34

teaching- learning process is rendered dry, drab and dreary. Such teaching-learning process is uninteresting, unproductive and wasteful. We have to ward off such joyless teaching.

Table 3.2.12

Use of Text books by Teachers

Text Used	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Read and explain from textbooks	109 95.61	99 97.05	91 92.86	96 96.00	108 98.08
Ask children to read aloud	96 84.21	93 91.18	92 93.88	88 88.00	89 81.65
Ask children to read from the textbook on their own	107 93.86	96 94.12	89 90.82	91 91.00	101 92.66
Assign home work from textbook	103 90.35	93 91.18	95 96.94	93 93.00	104 95.41
Do not use textbooks at all	44 38.60	88 86.27	8 08.16	13 13.00	11 10.09

A small fraction of teachers (except 86% of teachers in Dhenkanal) have reported that they donot use textbooks at all which is outrightly not acceptable.

Home Assignment

Home work is regular in most of the cases (Table 3.2.13). Barring the singular exception of Kalahandi (where more number of teachers reported giving homework "sometimes") in the remaining districts more than seventy percent of teachers regularly give home assignment to children. This information provided by the teachers was confirmed by children.

Table 3.2.13

Percentage of Distribution of Teachers Giving Homework

Districts	Homework Given	Percentage of Teachers
B a l a n g i	Regularly	77.19
	Sometimes	19.29
	Not at all	3.52
D h e n k a n a l	Regularly	71.57
	Sometimes	23.53
	Not at all	4.90
G a l a p a l	Regularly	62.22
	Sometimes	32.65
	Not at all	5.13
K a l a h a n d i	Regularly	43.00
	Sometimes	55.00
	Not at all	2.00
R a y a g a d a	Regularly	74.31
	Sometimes	23.85
	Not at all	1.84

Table 3.2.14

Distribution of Teachers Giving Home Work In Language
(In terms of number of pages)

Districts	No of Pages	Genderwise			Locallionwise		
		Male	Female	Total	Rural	Urban	Total
Balangir	Zero	0.00	0.00	0.00	0.00	0 00	0.00
	One	36.36	14.23	32.46	34.34	20 00	32 46
	Two	50 00	46.11	49.12	49.49	46 67	49 12
	Three	10 23	7.69	9.61	9.09	13 33	9 65
	Four	1.14	7 69	2.63	3.03	0 00	2 63
	Five and more	2 27	19 23	6 14	4 04	20 00	6 14
Dhenkanal	Zero	0 00	0.00	0 00	0.00	0 00	0 00
	One	59 74	40.00	54 90	55.06	53 85	54 90
	Two	24.68	40 00	28.43	28 09	30 77	28 43
	Three	2.60	4 00	2 94	2.25	7 69	2 94
	Four	3.94	8 00	4 90	4.49	4 69	4 90
	Five and more	9 09	8 00	8 82	10.11	0.00	8 82
Gajapati	Zero	0 00	0 00	0.00	0.00	0.00	0 00
	One	55.38	63 64	58 16	54.88	75.00	58 16
	Two	24.23	33 33	30 61	33 92	18.75	30 61
	Three	12.31	3.03	9 18	9.76	6.25	9 18
	Four	0 00	0.00	0 00	0.00	0 00	0.00
	Five and more	3.08	0 00	2 40	2.44	0 00	2 04
Kalahandi	Zero	0.00	0 00	0.00	0 00	0 00	0 00
	One	55.38	63.64	58.16	42.39	85 50	46.00
	Two	29 23	33.33	30.61	40.22	12.50	38.00
	Three	12.31	3.03	9.18	5 43	0.00	5 00
	Four	0.00	0.00	0.00	4 35	0 00	4 00
	Five and more	3.08	0 00	2 04	7.61	0.00	7.00
Rayagada	Zero	0.00	0 00	0.00	0.00	0 00	0 00
	One	28.74	45 45	32.11	33.71	25.00	32 71
	Two	40.23	13 64	34.86	35.96	30.00	33 64
	Three	19.54	18.18	19.27	21.35	10 00	19.63
	Four	5.75	4.55	5.50	5.62	5.00	5.61
	Five and more	5 75	18.18	8.26	3.37	30.00	8 41

Table 3.2.15
Distribution of Teachers Giving Home works In Mathematics
In terms of Number of Sums

Districts	Numb & Sums	Genderwise			Locationwise		
		Male	Femal	Total	Rural	Urban	Total
B a l a n g i r	0	6.81	15.38	8.77	6.06	26.61	8.77
	1 to 3	18.20	15.38	17.54	19.19	6.61	17.55
	4 to 6	64.77	61.54	64.04	66.67	46.67	64.03
	7 to 9	2.27	3.85	2.63	2.02	6.67	2.63
	10 to 15	7.95	3.85	7.02	6.06	13.32	7.02
D h e n k a n a l	0	6.49	0.00	4.90	5.62	0.00	4.90
	1 to 3	5.19	12.00	6.86	5.62	15.38	6.86
	4 to 6	66.54	72.00	68.62	68.54	69.23	68.63
	7 to 9	7.79	44.00	6.86	7.87	0.00	6.86
	10 to 15	12.99	12.00	12.76	12.35	15.39	12.75
G a j a p a t i	0	9.23	3.00	7.14	7.50	6.25	7.29
	1 to 3	13.85	12.12	13.27	13.75	12.30	13.54
	4 to 6	60.00	72.73	64.29	61.25	75.00	63.54
	7 to 9	6.15	6.06	6.12	7.50	0.00	6.25
	10 to 15	10.77	6.06	9.18	10.00	6.25	9.38
K a l a h a n d i	0	6.17	5.26	6.00	5.43	12.50	6.00
	1 to 3	12.35	10.53	12.00	9.78	37.50	12.00
	4 to 6	65.43	78.95	68.00	69.57	50.00	68.00
	7 to 9	7.41	5.26	7.00	7.61	0.00	7.00
	10 to 15	8.64	0.00	7.00	7.61	0.00	7.00
R a y a g a d a l	0	11.49	4.54	10.09	11.24	5.00	10.09
	1 to 3	11.49	9.09	11.01	11.24	10.00	11.01
	4 to 6	56.32	15.09	56.88	57.30	55.00	56.88
	7 to 9	13.00	13.64	12.84	11.24	20.00	12.84
	10 to 15	8.05	13.64	9.18	8.98	10.00	9.18

The regularity or otherwise of giving home assignments to children is of little significance unless the quantum of assignment given in language and mathematics is ascertained. With this in view, the Teacher Schedule has been designed to seek information about the quantum of assignment in language in terms of number of pages and assignment in mathematics in terms of number of sums (Table 3.2.14 and 3.2.15).

In language, the majority of teachers reported giving assignment between one to two pages in all the districts (Balangir : 60.3%; Dhenkanal: 83.3%; Gajapati: 88.8.%; Kalahandi: 88.8%; and Rayagada: 69.7%). In mathematics majority of teachers (on an average 63.5%) reported giving 4 to 6 sums to the pupils in the form of home assignment. There are 7.4 percent of teachers across the districts who reported absence of practice of giving home assignment. Variation in percentages between male and female teachers in respect of quantum of assignment is, however, not very pronounced.

For most of the children of the state, more particularly, for the children of the DPEP districts, textbooks remain an exclusive possession. In the absence of workbook for students, the importance of home assignment cannot be undermined. But a balance needs to be struck between home assignment for reinforcement and consolidation of concepts and competencies taught, and reducing the gravitational and incomprehension load on the children. The issue calls for a fresh look.

Supervision of Classes

Teachers' responses with regard to supervision of their classroom teaching by the headmasters of primary schools and by departmental higher officers like BEO/DEO reveal a very dismal and disappointing situation (Table 3.2.16). It could be seen that more than two-thirds of teachers(66.18%) report that headmasters do not supervise their classes and do not give constructive feedback to improve their teaching performance. The situation almost

does not vary in districts. The visits of the BEO and the DEO is occasional and perfunctory. The supervision is almost non-existent.

Table 3.2.16

Distribution of Teachers Reporting
Classroom Supervision (%)

District	Headmaster	BEO/DEO
Balangir	65.00	90.15
Dhenkanal	58.35	88.57
Gajapati	67.64	91.38
Kalahandi	70.39	94.85
Rayagada	69.51	95.63

Interactions with the teachers and supervisory observations of the BEO/DEO bring to light the nature and depth of supervision. The main tasks of BEOs seem to concentrate on administration, evaluation of teachers and other non-academic matters. The field notes show a wealth of information about the futility of supervision exercise. This type of attitude and indifference of BEOs are counter-productive to school improvement. One of the plausible reasons for no-supervision by headmasters is that they do not have, in most of the cases, higher educational qualifications and professional leadership.

Teachers' Status in Schools

No uniform pattern emerges regard to the reasons for which the teachers have been in the present school

Table 3.2.17

**Distribution of Teachers According to Reasons for being
in the present School**

Districts	Reasons	Number of Teachers		
		Male	Female	Total
Balangir	Personal and Family	19.32	30.77	27.93
	Compulsory Transfer	46.59	46.15	46.49
	Higher Salary and Benefits	2.27	0.00	1.75
	Greater Job Security	2.27	7.69	3.57
	Greater Job satisfaction	4.55	7.69	5.26
	Less Work Load & Responsibility	0.00	0.00	0.00
	Other reasons	18.18	0.00	14.04
	NA	6.82	7.69	7.02
Dhenkanal	Personal and Family	20.78	48.00	27.45
	Compulsory Transfer	3.90	0.00	2.44
	Higher Salary and Benefits	10.39	12.00	10.78
	Greater Job Security	1.30	0.00	0.98
	Greater Job satisfaction	6.49	4.00	5.88
	Less Work Load & Responsibility	1.30	0.00	0.98
	Other reasons	51.95	28.00	46.08
	NA	3.90	8.10	4.90
Gajapati	Personal and Family	10.77	15.15	12.24
	Compulsory Transfer	12.31	9.09	11.22
	Higher Salary and Benefits	0.00	0.00	0.00
	Greater Job Security	1.54	3.03	2.04
	Greater Job satisfaction	6.15	3.03	5.10
	Less Work Load & Responsibility	0.00	0.00	0.00
	Other reasons	56.92	45.45	53.08
	NA	12.31	24.24	16.33

Contd.,

Table (Contd.)

**Distribution of Teachers According to Reasons for being
In the present School**

Districts	Reasons	Number of Teachers		
		Male	Female	Total
Kalahandi	Personal and Family	17.28	31.58	20.00
	Compulsory Transfer	55.56	42.11	53.00
	Higher Salary and Benefits	8.64	0.00	7.00
	Greater Job Security	1.23	0.00	1.00
	Greater Job satisfaction	8.64	5.26	8.00
	Less Work Load & Responsibility	0.00	0.00	0.00
	Other reasons	0.00	5.26	1.00
	NA	8.64	15.79	10.00
Rayagada	Personal and Family	36.63	40.91	36.70
	Compulsory Transfer	36.78	31.82	35.78
	Higher Salary and Benefits	0.00	4.55	0.92
	Greater Job Security	1.15	0.00	0.92
	Greater Job satisfaction	5.75	4.55	5.50
	Less Work Load & Responsibility	0.00	0.00	0.00
	Other reasons	9.20	9.09	9.17
	NA	11.49	9.09	11.01

(Table 3.2.17). Analysis of the responses of teachers brings to light the following :

- "Compulsory transfer" as a reason is found to be predominant in Balangir (47%), Kalahandi (53%) and Rayagada (36%). This incidence of compulsory transfer needs to be examined objectively. In case of Gajapati and Dhenkanal, "other reasons" is stated to be a pronounced factor.
- The compulsion of "personal and family" concerns seem to be the major reason for women teachers for being at the present school. This reason appears to have a strong sway with women teachers in Balangir, Dhenkanal, Kalahandi and Rayagada. It is a matter of grave concern that very few teachers reported enjoying job-satisfaction being in the present school. Personal concerns and interests appear to have taken precedence over academic and pedagogic concerns.

Assistance from School Heads

Table 3.2.18 deals with information about the extent of help the headmasters extend to their colleagues in executing their teaching tasks. The headmaster essentially plays the role of a manager as the supplier of services to satisfy and exceed the consumers needs. Therefore, his/her relationship and role have a direct impact on the teacher morale and self-confidence and teaching-learning process. The data reveal a very interesting situation rather a mixed picture. The difference between "very helpful" and "not helpful" appears to be marginal. Field notes are more expressive of the antagonistic attitude, authoritarianism, lack of interest and concern for co-workers and non-involvement in the teaching-learning process. Even some of the teachers reported that headmasters do not take classes and pleasing the administration remains the major preoccupations of the heads.

Table 3.2.18

**Distribution of Teachers According to the Extent of Help
Received from Head Teacher/Principal**

District	Kind of School	Genderwise			Locationwise		
		Male	Female	Total	Rural	Urban	Total
Balangir	Not Applicable	0.00	0.00	0.00	0.00	0.00	0.00
	Very Helpful	46.59	38.77	42.98	44.24	33.33	42.98
	Somewhat Helpful	18.18	61.54	28.07	25.25	46.67	28.07
	Not Helpful	35.23	7.69	28.95	30.30	20.00	28.95
Dhenkanal	Not Applicable	0.00	0.00	0.00	0.00	0.00	0.00
	Very Helpful	19.48	36.00	23.53	24.72	15.38	23.53
	Somewhat Helpful	32.47	44.00	35.29	33.71	46.15	35.29
	Not Helpful	48.05	20.00	41.18	41.57	38.46	41.18
Gajapati	Not Applicable	0.00	0.00	0.00	0.00	0.00	0.00
	Very Helpful	43.08	48.48	44.90	43.90	50.00	44.90
	Somewhat Helpful	12.31	30.30	18.37	18.29	18.75	18.37
	Not Helpful	44.62	21.21	36.73	37.80	31.25	36.73
Kalahandi	Not Applicable	0.00	0.00	0.00	0.00	0.00	0.00
	Very Helpful	24.69	21.05	24.00	22.83	37.50	24.20
	Somewhat Helpful	28.40	36.84	30.00	28.26	50.00	30.00
	Not Helpful	46.91	42.11	46.00	48.91	12.50	46.00
Rayagada	Not Applicable	0.00	0.00	0.00	0.00	0.00	0.00
	Very Helpful	33.33	68.12	40.37	38.20	50.00	40.37
	Somewhat Helpful	24.14	22.73	23.55	22.47	30.00	23.85
	Not Helpful	42.83	9.09	35.78	39.33	20.00	35.78

Table 3.2.19

**Distribution of Teachers According to the Extent of Help
Received from Block Education Officer**

District	Categories	Numbers of teachers		
		Male	Female	Total
Balangir	Not Applicable	0.00	0.00	0.00
	Very Helpful	13.64	23.08	15.79
	Somewhat Helpful	59.09	38.46	54.39
	Not Helpful	27.27	38.46	29.82
Dhenkanal	Not Applicable	0.00	0.00	0.00
	Very Helpful	11.69	8.00	10.78
	Somewhat Helpful	75.32	88.00	78.43
	Not Helpful	12.99	4.00	10.78
Gajapati	Not Applicable	0.00	0.00	0.00
	Very Helpful	7.69	18.18	11.22
	Somewhat Helpful	67.69	63.64	66.33
	Not Helpful	24.62	18.18	22.45
Kalahandi	Not Applicable	0.00	0.00	0.00
	Very Helpful	29.63	10.53	26.00
	Somewhat Helpful	37.04	52.63	40.00
	Not Helpful	33.33	36.84	34.00
Rayagada	Not Applicable	0.00	0.00	0.00
	Very Helpful	20.69	31.82	22.94
	Somewhat Helpful	87.47	59.00	55.96
	Not Helpful	21.84	18.18	21.10

Block Education Officers' Support

Next to heads, the teachers expect seek assistance and guidance from the BEO to function as effective "actors" in schools. Overall, the teachers appear to be satisfied with the assistance provided to them by the BEOs. The extent of assistance seems to be moderate: majority of teachers reported that the BEOs are "somewhat helpful". This position is in direct contradiction with the earlier finding that BEOs almost do not supervise classes. However, aspects of such assistance need to be studied in details (Table 3.2.19).

Colleagial Support

Table 3.2.20 pertains to the support, assistance and co-operation the respondents receive from their colleagues in schools. Teachers in primary schools do not work in a situation of isolation and insularity. On the other hand, they work in company with their co-workers i.e., the other teachers. A look at the Table reveals that majority of the teachers have expressed their appreciation about the extent of assistance they receive from their colleagues. This becomes more explicit when two graded preferences, namely "very helpful" and "somewhat helpful" are combined. However, a somewhat seething dissatisfaction appears to be evident. The percentage of teachers who have reported "not helpful" is not very small. Their percentages for Balangir, Dhenkanal, Gajapati, Kalahandi and Rayagada are 33.9, 29.9, 30.8, 50.6 and 51.7 respectively. The extent of distrust and dissatisfaction is high enough in Kalahandi and Rayagada. The composition of teachers community by residence and non-residence(ST and Non-ST) in these two ST dominated districts and aspects of assistance will provide greater insight into primary schools. Less number women teachers than male have reported that their colleagues are not helpful to them.

Table 3.2.20

**Distribution of Teachers According to the Extent of Help
Received from Primary Teachers**

District	Frequency	Genderwise			Locationwise	
		Male	Female	Total	Rural	Urban
Balangir	Very Helpful	28.41	14.23	26.32	25.25	33.33
	Somewhat Helpful	38.64	61.54	43.86	42.42	53.33
	Not Helpful	32.95	19.23	29.82	32.32	13.33
Dhenkanal	Very Helpful	14.23	16.00	14.71	16.85	0.00
	Somewhat Helpful	55.84	64.00	57.84	55.06	76.92
	Not Helpful	29.87	20.00	27.45	28.09	23.08
Gajapati	Very Helpful	30.77	24.24	28.57	29.27	25.00
	Somewhat Helpful	38.46	51.55	43.88	41.40	56.25
	Not Helpful	30.77	21.21	27.53	29.27	18.75
Kalahandi	Very Helpful	9.88	5.26	9.00	7.61	25.00
	Somewhat Helpful	39.51	47.37	41.00	39.13	62.50
	Not Helpful	50.62	47.37	50.00	53.26	12.50
Rayagada	Very Helpful	21.84	36.36	24.77	23.60	30.00
	Somewhat Helpful	36.44	22.73	25.69	26.97	20.00
	Not Helpful	51.71	40.91	49.54	49.44	50.00

Preference of Schools for Children

Almost an identical preference pattern evolved with regard to type of school the teachers would choose for education of their children. Predominantly large number of teachers chose government schools. No variation is found to exist in the pattern of preference of teachers either on the basis of gender or on the basis of location (Table 3.2.21). Two plausible reasons that substantiate this position are : (i) government schools are stable and educational services provided are entirely subsidized, (ii) non-availability and non-viability of private aided schools in the districts. Gajapati district indicates a somewhat equal preference for 'government' and 'private' (aided and unaided) schools.

Characteristics of Head-teachers

Head-teachers formed a special purposive sub-sample of teachers. This was done primarily because of the specific and special responsibilities they have which are not shared by other teachers. The analysis of the second part TS brings into focuss the following findings :

- Nearly 92 percent of headteachers reported checking diaries, preparing monthly tests, taking decisions on pupils promotion, etc.
- More than three-fourths of headteachers reported that they observed classroom teaching of teachers and suggested improvements. This finding, when juxtaposed with the extent of supervision of classes (Table 3.2.16) reported by teachers contradicts their stated role in supervision. Moreover, a few case studies of diaries and supervisory notes don't support this.

Evaluation of Teacher Performance

Table 3.2.22 presents information about the means that methods headteacher adopt in assessing or evaluating teacher performance.

Table 3.2.21

Teachers Preference for School Type for Education of their Children

District	Kind of School	Genderwise			Locationwise		
		Male	Female	Total	Rural	Urban	Total
Balangir	Government	88.64	76.92	85.96	86.87	80.00	85.96
	Private (Aided)	4.55	11.54	6.14	6.06	6.67	6.14
	Private (Unaided)	1.14	11.54	3.51	2.02	13.93	3.51
	No special preference	5.68	6.00	4.39	5.05	0.00	4.39
Dhenkanal	Government	93.51	80.00	90.20	89.89	92.31	90.20
	Private (Aided)	0.00	0.00	0.00	0.00	0.00	0.00
	Private (Unaided)	2.60	20.00	6.86	6.77	7.69	6.86
	No special preference	3.90	0.00	2.94	3.37	0.00	2.94
Gajapati	Government	76.92	72.73	75.57	73.17	87.80	75.57
	Private (Aided)	1.54	6.06	3.06	2.44	6.25	3.06
	Private (Unaided)	16.92	18.18	17.35	19.51	6.25	17.35
	No special preference	4.62	3.03	4.08	4.18	0.00	4.08
Kalahandi	Government	53.09	36.84	50.00	57.09	37.50	50.00
	Private (Aided)	6.17	21.05	9.00	7.61	25.00	9.00
	Private (Unaided)	33.33	36.84	34.00	33.70	37.00	34.00
	No special preference	7.41	5.26	7.00	7.61	0.00	7.00
Rayagada	Government	78.16	72.78	77.06	74.11	90.00	77.06
	Private (Aided)	8.05	9.09	8.26	10.11	0.00	8.26
	Private (Unaided)	11.49	13.69	11.93	12.36	10.00	11.93
	No special preference	2.30	4.55	2.75	3.37	0.00	2.75

Table 3.2.22

Methods used by Headteachers for Evaluation

Method of Evaluation	Balangir		Dhenkanal		Gajapati		Kalahandi		Rayagada	
	Ist	IInd	Ist	IInd	Ist	IInd	Ist	IInd	Ist	IInd
Classroom observation	92.0	5.0	95.0	3.5	91.8	3.0	90.0	4.6	85.0	10.0
Students result	7.0	65.0	2.8	68.0	6.2	67.0	6.0	76.3	10.6	72.0
Teachers Notes	0.0	10.0	2.2	8.00	0.0	15.2	0.0	3.1	0.0	5.0
Review of Homework	1.0	20.0	0.0	25.5	2.0	14.8	4.0	16.0	4.4	13.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

As revealed from the Table, classroom observation is the most commonly used method of evaluating teachers performance. This finding, however, is not in conformity with other findings. Next in prominence is the students achievement as an indicator of teachers performance. The third order parameter for evaluating teachers performance is the review of home assignment given to students.

Headteachers were asked to rank factors which are helpful for the effective functioning of the schools (Table 3.2.23).

There is complete convergence of perceptions of headteachers with regard to the highest contribution of the "teacher commitment" factor to school effectiveness. This is followed by the will-power and efficiency of the headteacher, student motivation and parental cooperation. In fact all these factors are interrelated and mutually reinforcing. For instance, a school with an outstanding headteacher can infuse motivation in teachers by involving them in various activities and can activate the functioning of PTAs and MTAs. What is important is planning for a synergetic alliance of the dynamic and malleable variables that contribute to effective functioning of schools.

The headteachers were asked to report the activities for which they have main responsibility. The responses have been recorded in Table 3.2.24.

It is evident from the Table that main responsibility of headteachers included : drawing up time table for classes, establishing standards for students' promotion, assigning teachers to different classes and evaluating teachers performance. However, activities in which headteachers do not have responsibility include to appointment of teachers, dismissal of teachers, and adapting syllabus to local conditions.

Table 3.2.23

Ranking of Important Factor for School Performance

Factors	Ist	IInd	IIInd	IVth	Vth
BALANGIR					
Teacher Commitment	65.0	57.4	61.5	62.7	58.6
Parental co-operation	06.2	08.3	07.8	05.8	06.4
Student Motivation	10.50	12.5	11.6	12.4	11.7
Headteacher's will- power and efficiency	15.30	18.7	17.4	16.5	17.3
Assistance from BEO	03.00	03.1	02.7	03.7	06.0
	100.0	100.0	100.0	100.0	100.0
DHENKANAL					
Teacher Commitment	56.9	59.7	58.8	60.1	12.3
Parental co-operation	08.7	09.1	07.5	06.9	08.7
Student Motivation	10.8	11.3	10.3	09.7	09.2
Headteacher's will- power & efficiency	19.3	16.8	17.6	15.8	15.6
Assistance from BEO	04.3	03.1	05.8	07.5	04.2
	100.0	100.0	100.0	100.0	100.0
GAJAPATI					
Teacher Commitment	62.4	64.3	63.7	60.2	58.7
Parental co-operation	05.9	05.3	06.1	05.7	07.1
Student Motivation	08.7	07.8	09.3	10.1	11.8
Headteacher's Will- power & efficiency	17.6	18.1	17.5	16.8	15.7
Assistance from BEO	05.4	04.5	03.4	07.2	06.5
	100.0	100.0	100.0	100.0	100.0

Contd...

Table 3.2.23 (Contd...)

Ranking of Important Factor for School Performance

	Ist	IInd	IIIRD	IVth	VIth
KALAHANDI					
Teacher Commitment	59.5	58.9	60.8	62.2	61.8
Parental co-operation	07.1	07.6	07.2	07.5	08.4
Student Motivation	08.9	08.3	08.9	09.6	08.7
Headteacher's will- power and efficiency	17.7	18.9	18.4	18.3	17.9
Assistance from BEO	06.8	06.3	04.7	02.4	03.2
	100.0	100.0	100.0	100.0	100.0
RAYAGADA					
Teacher Commitment	61.7	62.3	60.8	58.6	59.6
Parental co-operation	06.2	05.3	06.4	06.1	07.1
Student Motivation	08.7	09.3	10.1	09.5	08.9
Headteacher's will- power & efficiency	16.9	17.2	18.3	17.9	18.4
Assistance from BEO	07.5	05.9	04.4	08.1	06.0
	100.0	100.0	100.0	100.0	100.0

Table 3.2.24
Activities for Which Head Teacher has Main Responsibility

School Activities	Districts				
	Balangir	Dhenkanal	Gajapati	Kalahandi	Mayagadha
Drawaing Up time table for classes	100.0	100.0	100.0	100.0	100.0
Assigning teachers to different classes	97.6	94.3	97.14	95.1	89.2
Deciding on expenditure in instructional aids	61.9	68.6	60.0	53.7	40.5
Appointing teachers to school	0.0	0.0	0.0	0.0	0.0
Dismissing/transferring teachers from school	0.0	0.0	0.0	0.0	0.0
Evaluating teachers performance	85.7	51.4	68.6	56.1	56.8
Establishing standards for students promotion	100.0	100.0	100.0	95.1	91.9
Establishing Homework Policies	95.2	97.1	91.4	97.6	86.5
Adapting syllabus to local conditions	0.0	0.0	0.0	0.0	0.0
Getting extra funds for the school	30.0	40.0	51.4	51.2	21.6

Teacher and teacher characteristics are one of the most significant inputs for school effectiveness. Indeed teacher competence and commitment make a difference to how our schools function. No quality improvement programme could be conceived and concretized without involvement of teachers. Therefore, findings that have emerged from the analysis in this section are the pointers for planning policy interventions and initiatives.

Section III

Dropout : Characteristics and Achievement

Incidence of dropout at the primary level is universal across the state. Educationally and economically it is a costly phenomenon. Inter-district variations are not uncommon. Dropout and wastage is a drag on our endeavour directed toward achieving the composite goal of UEE. It tends to neutralise the gains achieved in the enrolment and access dimension of UEE. Therefore, the present section on dropouts discusses : (i) distribution of dropouts by gender, location and social groups (ii) attendance and repetition; (iii) reasons for dropping out; (iv) educational aspirations; (v) placement and (vi) learning achievement of dropouts.

Distribution of Dropouts by Gender, Location and Caste

Tables 3.3.1, 3.3.2 and 3.3.3 show the genderwise, locationwise and castewise distribution of dropouts. Out of 398 dropouts, as many as 130 dropouts are from Balangir. It may be noted here that inclusion of dropouts depend on availability of dropouts for interview. The inter-district variations in the number of dropouts, therefore, do not represent their proportionality to the dropout populations of the DPEP districts. The percentages of dropouts (boys) and dropouts (girls) are 54.5 and 45.5 respectively. The number of girl dropouts interviewed was more in Rayagada.

Locationwise distribution of dropouts indicates the predominance of dropouts from the rural sector. The overall percentage of rural dropouts in the five districts is found to be 92.3 percent. This is a reflection of the incidence of more students from rural schools dropped out than from urban schools. This aspect should be considered with caution because it is difficult to locate dropouts in urban areas than from villages. Nevertheless, dropout is more a phenomenon in rural than in urban primary schools on account of several reasons.

Let us examine the distribution of dropouts by social groups. The intention is to see if their disadvantaged status in the society affects their education. The analysis shows that more students belonging to SC, ST and OBC dropped out in all the districts except Dhenkanal where the situation has a slight edge in favour of the disadvantaged social groups. More than 54 percent of dropouts in Dhenkanal district are from "others" category only.

Table 3.3.3

Percentage Distribution of Dropouts (Castewise)

District	SC	ST	OBC	Others	Total
Bolangir	27.69	18.46	42.31	11.54	100.00
Dhenkanal	27.27	14.29	3.90	54.55	100.01
Gajapati	32.35	8.82	20.60	38.24	100.00
Kalahandi	36.71	10.14	50.63	2.53	100.01
Rayagada	34.62	34.62	20.51	10.27	100.01

Educational Status of Parents

Information pertaining to the educational status of parents of dropouts have been presented in Table 3.3.4.

Analysis of data furnished in the table reveals that :

- On an average more than 50 percent of fathers of dropouts are illiterate and did not have schooling experience at all. Relatively, less percentage of fathers in Gajapati (35.3%) and Dhenkanal (38.9%) were illiterate. Therefore,

the majority of dropouts are found to be first generation learners.

- In case, of mothers, the illiteracy rate is more than 80 percent in Gajapati, Kalahandi and Rayagada whereas a little higher than it is 68 percent in Balangir and Dhenkanal.
- A smaller percentage of dropouts have fathers who have education upto primary level. The percentages are highest in Gajapati (15.17%), Dhenkanal (29.2%) and Balangir (17.77%). The percentage of fathers of dropouts having secondary level education is found to be the highest (12.9%) in Rayagada.

Table 3.3.4

Percentage of Distribution of Dropouts on the Basis of Educational Level of Parents

Educational Level	Balangir		Dhenkanal		Gajapati		Kalahandi		Rayagada	
	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother
Illiterate	62 67.69	89 68.46	28 38.89	52 67.53	12 35.29	30 88.24	41 51.90	66 83.54	43 55.13	61 80.77
Literate	9 6.92	3 2.31	4 5.56	5 6.49	3 8.82	2 5.88	6 7.59	1 1.27	4 4.89	1 1.28
Primary	23 17.69	18 13.85	21 29.17	8 10.39	12 35.29	0 0.00	7 8.86	2 2.53	0 10.26	4 5.13
Secondary	17 13.08	4 3.08	3 4.17	0 0.00	1 2.94	0 0.00	4 5.06	0 0.00	10 12.82	1 3.09
Higher Secondary	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00
College	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00	1 1.28	0 0.00
Do not know	19 14.62	16 12.31	21 22.22	12 15.58	6 17.65	2 5.88	21 26.58	10 12.66	13 16.67	7 8.97

Class Last Attended

Incidence of dropping out does not normally take place in class I. The magnitude of dropout accentuates with progression of classes. This is evident from Table 3.3.5.

Table 3.3.5
Sampled Dropouts by Class in which Last
Enrolled (%)

District	Class III	Class IV	Class V
Balangir	25.3	30.8	43.9
Dhenkanal	24.5	34.7	40.8
Gajapati	23.3	37.7	39.0
Kalahandi	22.8	36.0	41.2
Rayagada	10.6	38.3	51.1

The trends in dropout perceptible from the Table are :

- In case of our districts (except Rayagada), the extent of dropout that takes place at class I level is about one-fourth (23.9%) of total dropouts.
- At the level of Class 3, on an average, one third of drout occurs. This pattern is almost similar across the districts.
- More than 40 percent of the dropouts are found to have left school at the level of grade 5. Thus, more and more number of children become dropouts from class 5 and onwards.

Repetition of Classes

Table 3.3.6 reveals the districtwise number of dropouts that have repeated different grades once, twice or thrice The analysis of the data presented in Table reveals the following trends :

Table 3.3.6

Number of Times Dropouts Repeated Classes

District	Class	Boys			Girls			Total		
		Once	Twice	Thrice	Once	Twice	Thrice	Once	Twice	Thrice
Bolangir	I	6	1	0	8	3	0	14	4	0
	II	8	1	0	12	1	0	20	2	0
	III	19	3	2	22	2	0	41	5	2
	IV	15	1	2	12	1	0	27	2	2
	V	3	0	0	5	1	0	8	1	0
Dhenkanal	I	7	2	1	2	3	0	9	5	1
	II	16	13	1	5	1	0	21	2	1
	III	10	5	0	1	2	0	11	7	0
	IV	8	1	0	1	1	0	9	2	0
	V	0	1	0	1	0	0	1	1	0
Gajapati	I	2	0	0	2	1	0	4	1	0
	II	4	0	1	2	1	0	6	1	1
	III	6	1	0	6	0	0	12	1	0
	IV	1	1	0	3	0	0	4	1	0
	V	0	1	0	0	1	0	0	2	0
Kalahandi	I	6	1	0	8	1	0	14	2	0
	II	11	2	0	2	1	0	13	3	0
	III	7	3	0	3	2	0	10	5	0
	IV	3	1	0	3	2	0	6	3	0
	V	0	1	0	2	1	0	2	2	0
Rayagada	I	0	1	0	0	1	0	0	2	0
	II	1	1	0	0	0	0	1	1	0
	III	6	0	0	6	0	0	12	0	0
	IV	0	0	0	4	1	1	4	1	1
	V	0	0	0	1	0	0	1	0	0

- Higher percentages of dropouts are found to have repeated one or the other grade once. This feature is commonly shared by all the districts. The percentages for Balangir, Dhenkanal, Gajapati, Kalahandi and Rayagada being 84.6, 66.2, 76.5, 57.0 and 23.1 respectively.
- Relatively less number dropouts have repeated a class twice and still less is the number who have repeated any grade thrice. Therefore, it could be concluded that repetition of any one grade only once has led the child to dropout from primary school. Hence, it is not detention on failure that is solely responsible for forcing the child to discontinue. This factor might be working in conjunction with other factors.
- More than 70 percent in Rayagada, 24 percent in Kalahandi and 10 percent of dropouts in Dhenkanal have not been detained at all. This points out the operation of other "in-school" and "out-school" factors that have made children leave school before completing the five-year cycle of primary education.
- Although the frequency of failure for once is highest cutting across all the districts, gender-wise variation is in favour of girls. In other words, less number of girls dropouts have failed once in Dhenkanal, Gajapati and Kalahandi. This leads one to explore the other plausible reasons for their dropping out.

Reasons for Discontinuing Studies

Dropouts were asked to give reasons for discontinuation of their studies. Interventions for doing away with or reducing the phenomenon of overall dropout to the intended level are to be planned on the basis of diagnosis of reasons. The dropouts cited many reasons responsible for their dropping out. Conclusions with regard to the

reasons the dropouts have cited are :

- The predominant reason for discontinuance of the studies of the dropouts is cited to be parental unwillingness. Of the five districts, more than 50 percent of dropouts cited parental unwillingness as the principal reason.
- The second important reasons which was commonly shared by the dropouts of all five districts, was that they found studies too difficult and therefore, they could not sustain their interest. As revealed from the field notes, one of the reasons as to why did they find studies difficult was that they being mostly first generation learners did have a congenial home support system. There, however, for not interested in studies.
- Genderwise variation is perceptible with regard to the reason "to assist in household chores". More than one-fifth of girl dropouts but a negligible percent (3.0%) of boys cited this as a reason. this indicates the perpetuation of the gender stereotypes in sex roles which needs to be knocked down.
- The most important finding reflecting the changing socio-cultural values that emerged locally that not a single dropout cited marriage as a reason for stopping their education.
- Reasons such as "cannot afford textbooks", "school too far", and "health not keeping well" did not act as deterrents to continuation of their studies.

Nutritional Status of Dropouts

A large section of dropouts reported getting their morning, afternoon and evening meals daily in all the districts. Inter-district variations were found to be very significant. However, availability food "sometimes"

Table 3.3.7

Nutritional Status of Dropouts

	Balangir			Dhenkanal			Gajapati			Kalahandi			Rayagada		
	Always	Some-times	Never	Always	Some-times	Never	Always	Some-times	Never	Always	Some-times	Never	Always	Some-times	Never
Morning	83 63.85	41 31.54	6 4.62	40 51.95	20 25.97	17 22.08	29 85.29	5 14.71	0 0.00	53 67.09	25 31.65	1 1.27	53 67.95	19 24.36	6 7.69
Afternoon	89 68.46	41 31.54	0 0.00	54 70.13	21 27.27	2 2.60	26 76.47	7 20.54	1 2.94	69 87.34	8 10.13	2 2.53	57 73.08	17 21.79	4 5.13
Evening	94 29.55	36 27.69	0 0.00	51 66.23	21 27.27	5 6.49	31 91.18	3 8.82	0 0.00	56 70.89	23 29.11	0 0.00	66 84.62	10 12.82	2 2.56

Table 3.3.8

131

Educational Aspirations of Dropouts

Districts	Occupation	Boys	Girls	Total
Balangir	0. Don't want to study	33.82	27.42	61.24
	1. Don't Know	10.29	6.45	16.74
	2. 5th Class	4.41	4.84	9.25
	3. 8th Class	4.41	17.74	22.15
	4. 10th Class	22.06	30.65	52.71
	5. 12th Class	7.35	8.06	15.41
	6. Graduation	16.18	3.23	19.41
	7. Engineering / Medical	1.47	1.61	3.08
Dhenkanal	0. Don't want to study	50.00	18.52	68.52
	1. Don't Know	6.00	7.41	13.41
	2. 5th Class	2.00	14.81	16.81
	3. 8th Class	6.00	10.52	16.52
	4. 10th Class	24.00	33.33	57.33
	5. 12th Class	4.00	3.70	7.70
	6. Graduation	8.00	3.70	11.70
	7. Engineering / Medical	0.00	0.00	0.00
Gajapati	0. Don't want to study	50.00	35.71	85.71
	1. Don't Know	5.00	14.29	19.29
	2. 5th Class	0.00	14.29	14.29
	3. 8th Class	10.00	7.14	17.14
	4. 10th Class	35.00	21.43	56.43
	5. 12th Class	0.00	7.14	7.14
	6. Graduation	0.00	0.00	0.00
	7. Engineering / Medical	0.00	0.00	0.00

Contd ..

Table 3.3.8 (Contd.)
Educational Aspirations of Dropouts

Districts	Occupation	Boys	Girls	Total
Kalahandi	0. Don't want to study	36.17	50.00	41.77
	1. Don't Know	14.89	21.88	17.72
	2. 5th Class	4.26	9.38	6.33
	3. 8th Class	4.26	6.25	5.00
	4. 10th Class	34.04	6.25	22.78
	5. 12th Class	2.13	3.12	2.53
	6. Graduation	4.26	0.00	2.53
	7. Engineering / Medical	0.00	3.12	1.27
Rayagada	0. Don't want to study	50.00	41.30	44.87
	1. Don't Know	18.75	8.70	12.82
	2. 5th Class	3.12	10.87	7.69
	3. 8th Class	3.12	8.70	6.41
	4. 10th Class	15.62	19.57	17.95
	5. 12th Class	6.25	4.35	5.13
	6. Graduation	3.12	6.52	5.13
	7. Engineering / Medical	0.00	0.00	0.00

and "never" taken together really amounts to non-availability of food to the dropouts. More than one-fourth of dropouts reported either "somewheres" of/ and never (Table 1.1.1). A limitation of this type of data is that more availability of food does not ensure the supply of essential nutrients.

Educational Aspirations of Dropouts

UEE strategies intend to bring the dropouts either to the formal or non-formal system of education. Therefore, their educational aspirations have a direct implication for making suitable interventions. A large percentage of dropouts reported their unwillingness to study (Balangir 30.8%; Dhenkanal 39.0%; Gajapati 44.1%; Kalahandi : 41.8% and Rayagada : 44.9%). About one-tenth of dropouts expressed their willingness to study only upto class VIII. The desire to study upto matriculation (10 year of school education) was lodged by more than 25 percent of dropouts in Balangir (26.1%), Dhenkanal (27.3%), Gajapati (22.4%) Kalahandi (22.8%), and lowest in Rayagada (18.0). Thus, a low aspiration level of dropouts emerges in all the districts. The inherent reasons of this needs to be probed into in depth.

It is revealed that most of these children were engaged in agricultural labour, services in households and working in shops. The dropouts engaged in paid work are between 4.1 percent in Dhenkanal and 23.5 percent in Gajapati. Gender variations are minimal.

If the goal of UEE is to be achieved within the timeframe of AD 2000, the persisting problem of wastage and dropout is to be reduced to the minimum. This could be possible only through appropriate policy interventions based on a realistic assessment of the factors that have direct bearing on children dropping out. The findings arrived at through analysis in the present section are definite pointers for initiating policy interventions.

Table 3.3.9
Percentage of Dropouts Doing Paid Work

District	Paid Work		
	Boys	Girls	Total
Balangir	12 (17.6)	12 (17.6)	18.5
Dhenkanal	3 (06.0)	1 (03.0)	0.5:1
Gajapati	6 (30.0)	2 (14.0)	23.5%
Kalahandi	9 (19.2)	1 (06.0)	12.7
Rayagada	6 (18.8)	6 (13.0)	15.4

Achievement in Literacy

A short test on literacy and numeracy with contents equivalent of class 2 standard carrying eight items in each section was used to assess the achievement level of the dropouts. The scores on literacy were split separately on gender, location, and caste basis and then were subjected to analysis.

Genderwise split of means and standard deviations reveals no definite relationship (Table 3.3.10). The gender differences are not significant in any district and neither group demonstrates any sort of dominance. The highest mean for either boys or girls is recorded in Dhenkanal and the lowest in Balangir.

Table 3.3.10
Achievement of Dropouts in Literacy (Genderwise)

Districts	Boys		Girls		Total	
	Mean	SD	Mean	SD	Mean	SD
Balangir	1.50	2.59	1.53	2.41	1.37	2.47
Dhenkanal	4.48	1.97	4.15	1.96	4.36	1.96
Gajapati	3.05	2.89	2.29	2.84	2.51	2.83
Kalahandi	3.21	2.69	3.25	2.94	2.74	2.80
Rayagada	2.06	2.58	2.05	2.74	2.06	2.65

Rural-urban divide in the performance of dropouts (Table 3.3.11) demonstrates a mixed trend. In Dhenkanal and Gajapati districts dropouts in the urban areas have higher means over who are in rural areas. Particularly in Gajapati the performance between the two groups is significant. On the other hand, the students in rural

having higher means over those in urban schools in the remaining three districts. The difference between the two groups in Kalahandi district is significant showing a better average by the dropouts from rural schools.

Table 3.3.11
Achievement of Dropouts in Literacy (Genderwise)

Districts	Rural		Urban	
	Mean	SD	Mean	SD
Balangir	1.55	2.51	1.11	2.31
Dhenkanal	4.36	1.98	4.50	0.71
Gajapati	2.03	2.46	6.80	0.84
Kalahandi	3.27	2.79	1.50	2.12
Rayagada	2.13	2.69	1.56	2.45

Castewise mean and standard deviation of literacy scores are presented in Table (3.3.12). From this table it is observed that other caste group has higher mean score in literacy in Dhenkanal and Kalahandi districts. The SC group is dominant in Balangir and Rayagada district and OBC group in Gajapati district. Most of the intergroup differences were found to be significant in all districts.

Achievement in Numeracy

The genderwise achievement in numeracy of the dropouts in different districts are presented in Table 3.3.13. Boys are seen to have higher average scores than that of girls in all the district except in Gajapati where the girls have slightly better average. Except in Dhenkanal, in no other difference is observed to be significant.

Table 3.3.12
Achievement of Dropouts In Literacy (Caste/wise)

Districts	SC		ST		OBC		Others	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Balangir	2.05	2.69	0.37	1.47	1.84	2.69	0.07	1.96
Dhenkanal	4.38	1.65	4.27	1.42	2.67	3.79	4.50	2.09
Gajapati	2.27	2.87	1.00	1.73	5.29	3.04	2.15	2.50
Kalahandi	3.49	3.07	1.37	1.50	3.25	2.62	0.50	2.12
Rayagada	2.85	2.66	1.48	2.39	1.62	2.75	2.25	3.11

Table 3.3.13
Achievement of Dropouts In Numeracy (Locationwise)

Districts	Rural		Urban		Total	
	Mean	SD	Mean	SD	Mean	SD
Balangir	0.64	1.43	0.00	0.00	0.59	1.39
Dhenkanal	3.36	2.00	4.00	1.41	3.37	1.98
Gajapati	1.35	1.82	6.80	0.84	2.14	2.59
Kalahandi	2.48	2.29	1.00	0.00	2.44	2.21
Rayagada	1.71	1.74	2.11	2.09	1.76	1.77

* Difference Significant

Table 3.3.14
Achievement of Dropouts in Numeracy (Genderwise)

Districts	Boys		Girls		Total	
	Mean	SD	Mean	SD	Mean	SD
Balangir	0.78	1.55	0.39	1.16	0.59	1.39
Dhenkanal	3.68	1.99	2.81	1.88	3.37	1.98
Gajapati	2.25	2.57	2.00	2.71	2.14	2.59
Kalahandi	2.72	2.32	2.03	2.01	2.44	2.21
Rayagada	1.88	1.88	1.67	1.71	1.76	1.77

* Different Significant

Locationwise distribution of mean scores on numeracy (Table 3.3.14) demonstrates significant intergroup differences in Gajapati where dropouts from urban schools have mean score of 6.80 out of maximum more of 8. In Balangir no correct response was available from dropouts in urban areas and in Kalahandi only one answered one item correctly.

Table 3.3.15

Achievement of Dropouts in Numeracy (Castewise)

Districts	SC		ST		OBC		Others	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Balangir	0.86	1.85	0.25	0.73	0.62	1.35	0.40	0.91
Dhenkanal	3.76	2.09	3.27	0.90	3.00	2.64	3.24	2.13
Gajapati	2.00	1.95	0.00	0.00	4.29	3.50	1.62	2.26
Kalahandi	2.21	2.23	3.25	2.19	2.45	2.27	2.50	0.71
Rayagada	1.41	1.55	1.48	1.72	2.31	1.74	2.75	2.37

The castewise distribution of the means and standard deviations of numeracy scores reveal OBC group in Gajapati district having highest average score of 4.29. ^(out of 8) Since the groups in a district except Gajapati have very small variations in mean score, the question of intergroup differences is not important point of investigation.

One the whole, except a few urban and advantaged groups in Gajapati district, the achievement of the dropouts did not reveal much and further statistical analysis was felt to be of little use.

Section IV

Achievement of Class 2 Students

The first year of schooling makes a world of difference to the young learners and sets the tune for their future performance. The assesement of acquisition basic competencies after the first year of schooling besides providing feedback for the immediate remediation in learning, act as marker for the future. In the context of planning for the primary school education, therefore, assessment of achievement of the students at this stage is carried out to act as the foundation of the pattern of learning and achievement during later period of primary schooling.

With this perspective in view, a test of literacy and numeracy was administered orally on a sample of 2125 of class 2 students drawn from 194 schools of the five project districts. The scores are analysed in terms of gender, location and caste and the levels of achievement are discussed in this section.

Achievement

The achievement of pupils after the completion of one year of schooling, considered to be the predictor of future performance in primary schools was therefore assessed through an oral test (NCERT class 2 Achievement Test) developed on the competencies of literacy and numeracy included at class I level.

Language

The test had two sections i.e. Letter Reading carrying 10 marks and Word Reading carrying 10 marks. In Letter Reading, the student has to read nine simple letters i.e.without any 'matra' and one comlex letter. In Word Reading the student had to read four types of words with various degrees of use of 'matra' (Table 1.7).

The mean of the achievement scores in language of class 2 students in the districts presented in Table 3.4.1 out of the total score of 20, the average performance of the class 2 students in Gajapati district is highest (14.50) with the least variance among the districts. Lowest of the mean is observed in Kalahandi district (8.91) with largest variance among the samples.

Table 3.4.1

Mean Achievement of Class 2 Students in Language

Districts	N	Mean	SD
Balangir	431	10.07	3.72
Dhenkanal	523	13.77	3.53
Gajapati	332	14.50	3.33
Kalahandi	398	8.91	4.16
Rayagada	441	13.43	3.75

The scores on the two components of the language test i.e., on Letter Reading and Word Reading split on gender basis (Table 3.4.2) demonstrates overall superior performance on Letter Reading irrespective of gender difference. The gender difference on both the components of the test is not significant for any district except in Balangir district.

Table 3.4.3 shows mean and standard deviation of scores on Letter Reading and Word Reading of pupils in the rural and urban schools. The mean scores on both components are higher for pupils reading in urban schools, urban pupils demonstrating significantly better performance in all the districts. Students of urban schools of Dhenkanal have the highest average in both the components with least variance while those in the rural schools of Kalahandi have the lowest average with maximum variance among the ten groups.

Table 3.4.2

Mean Achievement of Class - 2 Students in Language (Genderwise)

Area	Districts	Boys		Girls		Total	
		Mean	SD	Mean	SD	Mean	SD
Letter Reading	Balangir	5.73	3.53	4.95	3.56	5.36	3.56
	Dhenkanal	7.47	3.04	7.12	3.38	7.32	3.20
	Gajapati	7.57	2.97	7.80	3.14	7.65	3.03
	Kalahandi	5.05	4.04	5.33	3.98	5.16	4.01
	Rayagada	6.84	3.53	6.52	4.01	6.72	3.71
Word Reading	Balangir	5.14	3.93	4.21	3.83	4.71	3.91
	Dhenkanal	6.45	3.83	6.32	3.92	6.45	3.83
	Gajapati	6.73	3.56	7.05	3.76	6.85	3.63
	Kalahandi	3.79	4.26	3.69	4.18	3.75	4.22
	Rayagada	6.28	3.91	5.99	4.26	6.17	4.04

* Difference significant

Table 3.4.3

Achievement of Class-2 Students in Language (Locationwise)

Area	Districts	Rural		Urban		
		Mean	SD	Mean	SD	
Letter Reading	Balangir	5.01	3.45	7.15	3.64	*
	Dhenkanal	7.09	3.27	9.25	1.40	*
	Gajapati	7.40	3.11	9.02	2.11	*
	Kalahandi	5.02	3.96	6.76	4.28	*
	Rayagada	6.53	3.74	7.97	3.34	*
Word Reading	Balangir	4.38	3.75	6.33	4.27	*
	Dhenkanal	6.12	3.86	9.16	2.10	*
	Gajapati	6.50	3.72	8.73	2.37	*
	Kalahandi	3.63	4.20	5.10	4.41	*
	Rayagada	5.96	4.02	6.78	3.94	*

* Difference significant

Table 3.4.4

Achievement of Class-2 Students in Language (Castewise)

Area	Districts	SC / ST		Others	
		Mean	SD	Mean	SD
Letter Reading	Balangir	5.18	3.44	5.48	3.64
	Dhenkanal	6.36	3.59	7.60	3.00
	Gajapati	6.81	3.34	8.18	2.68
	Kalahandi	4.64	4.04	6.04	3.80
	Rayagada	6.31	3.72	7.21	3.65
Word Reading	Balangir	4.77	3.71	4.67	4.03
	Dhenkanal	5.37	4.12	6.77	3.68
	Gajapati	5.82	4.05	7.40	3.18
	Kalahandi	3.14	4.05	4.78	4.31
	Rayagada	5.67	4.05	6.78	3.94

* Different Significant

The performance of learners may be affected because of their socio-economic status. Children belonging to SC and ST groups, at present are considered socially disadvantaged. Table 3.4.4 depicts the mean scores and standard deviations of SC/ST and general caste (others) groups for each district to know the status and aid the inter-group comparison.

SC/ST children having highest mean scores in Letter Reading and Word Reading are in Gajapati district and the lowest in Kalahandi district. It is evident from the table that in all the districts barring Balangir, the intergroup differences between SC/ST and 'Other' groups are significant. That is the children belonging to SC and ST groups are performing at a significantly lower level than their counterparts in the general caste category.

Levels of Achievement

Quality of learning depends on the level of learner's performance. Traditional practice of examining at the end of an year with arbitrarily chosen items and certifying on a performance level as low as 30 percent of the total marks cannot be considered by any logic, of ensuring quality. Therefore, while introducing quality generating teaching-learning practices like MLL through DPEP, the Baseline Assessment Study must address itself to provide a picture of the present level of attainment.

The analysis of achievement scores have been done under five levels of attainment. These are :

- i) Zero level - percentage of students securing zero in the test.
- ii) Not Achieving MLL- Percentage of students securing more than zero and less than 40 percent.
- iii) Achieving MLL- Percentage of students securing between 40-60 percent.

- iv) Approaching Mastery - Percentage of students securing between 61-79 percent.
- v) Mastery Level : Percentage of students securing.

Genderwise Levels of Language Achievement

Percentage of class 2 students of the five project districts have been arranged genderwise basing upon their performance on the two components of literacy test i.e., Letter Reading and Word Reading (Table 3.4.5). The range of students in the lower range of the achievement (i.e., securing below 40 percent) is from 21.61 percent in Dhenkanal district to 48.49 percent in Kalahandi district. 19.46 percent of boys in Dhenkanal district constitute the smallest group of low achievers among all the groups. Similar trend is also perceptible in the performance of Word Reading. Gender difference in students not achieving MLL is not uniform among the districts. In both the components, percent of boys exceeding girls can be observed in Gajapati and Rayagada districts whereas the reverse is the position in Balangir and Kalahandi. In Dhenkanal percentage of non-achieving Girls is more than that of non-achieving boys in Letter Reading while just the opposite is the case for Word Reading (Fig.3.4.1 & 3.4.2).

Percentage of students achieving mastery in Word Meaning (i.e., securing 80 percent or more) ranges from 35.03 percent in Balangir to 65.66 percent in Gajapati. Similar is the trend in Word Reading with a range from 32.71 percent to 57.23 percent.

Locationwise Levels of Language Achievement

The rural-urban differentiation in the percent of students attaining different levels of mastery can be observable in the Table 3.4.6. The percentage of rural students not achieving MLL is more than their urban counterparts in all the districts. The concentration of non-achievers in both the components of the language test is maximum in Balangir district in both the gender groups.

Table 3.4.5
Achievement of Class - 2 Students in Language (Genderwise)

Area	Levels	Balangir			Dhenkanal			Gajapati			Kalanandi			Rayagada		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Letter Reading	Zero	16.09	21.39	18.50	7.72	11.56	9.37	3.72	5.98	4.52	25.94	22.01	24.37	14.08	21.34	16.78
	Not Achieving MLL	29.96	28.36	27.61	11.74	12.89	12.24	20.93	16.24	19.28	23.43	25.16	24.12	13.72	10.98	12.70
	Achieving MLL	8.70	8.96	8.82	5.03	3.59	4.40	7.44	1.71	5.42	5.86	6.92	6.28	5.42	4.97	4.99
	Approaching Mastery	8.70	11.44	9.98	8.05	10.22	8.99	4.65	5.98	5.12	4.60	5.03	4.47	8.66	4.27	7.03
	Achieving Mastery	39.57	29.85	35.03	67.45	61.78	65.01	63.26	70.09	65.66	40.17	40.88	40.45	58.12	56.15	58.50
Word Reading	Zero	23.91	31.84	27.61	16.78	20.89	18.55	10.23	11.11	10.54	47.7	41.51	45.23	18.05	24.39	20.41
	Not Achieving MLL	26.52	27.86	27.15	17.11	12.00	14.91	25.12	18.80	22.89	15.06	25.16	19.10	18.05	15.95	17.23
	Achieving MLL	4.78	7.46	6.03	4.38	8.00	5.93	4.15	2.56	3.61	4.50	1.89	3.52	3.66	3.66	6.80
	Approaching Mastery	6.09	6.97	6.50	8.05	5.33	6.86	6.66	3.42	5.72	2.26	1.89	2.07	4.33	4.88	4.54
	Achieving Mastery	38.78	25.87	32.71	53.69	53.78	53.73	53.13	54.10	57.22	30.64	25.56	30.16	50.6	50.22	50.46

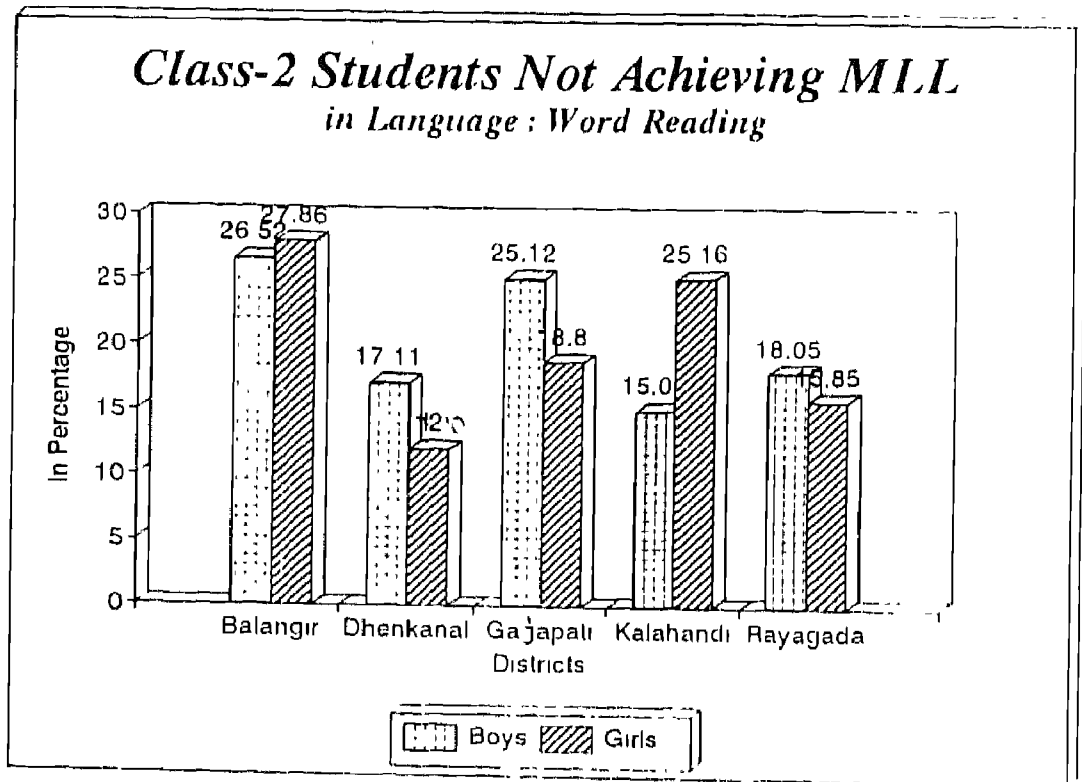


Fig. 3.4.2

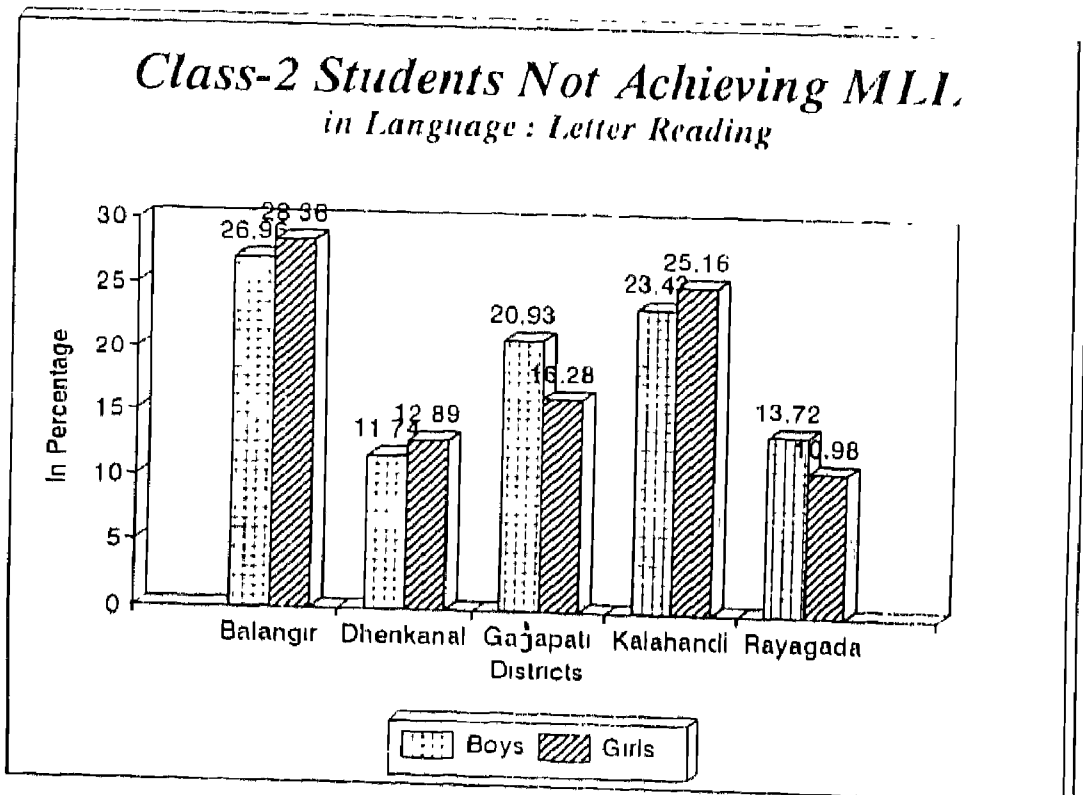


Fig. 3.4.1

Table 3.4.6
Achievement of Class - 2 Students in Language (Location wise)

Area	Levels	Balangir		Dhenkanal		Gajapati		Kalahandi		Total	
		Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Total	Urban
Letter Reading	Zero	19.83	12.33	10.49	0.00	5.36	0.00	24.30	24.21	11.66	10.11
	Not Achieving MLL	30.17	15.07	13.28	3.57	21.43	7.69	25.48	9.09	14.34	8.12
	Achieving MLL	9.50	5.48	4.71	1.79	6.43	0.00	6.85	0.00	5.51	1.60
	Approaching Mastery	10.89	5.48	9.42	5.36	5.36	3.85	4.66	6.06	7.95	3.49
	Achieving Mastery	29.61	61.64	62.10	89.29	61.43	88.46	38.61	60.61	55.91	76.27
Word Reading	Zero	28.77	21.92	20.34	3.57	11.79	3.85	46.59	27.27	21.52	13.44
	No Achieving MLL	29.89	13.70	16.49	1.79	26.43	3.85	18.80	27.27	18.11	11.67
	Achieving MLL	6.70	2.74	6.42	1.79	3.93	1.92	3.54	4.09	7.87	0.00
	Approaching Mastery	6.98	4.11	7.71	0.00	5.36	7.69	2.19	0.00	4.72	3.33
	Achieving Mastery	27.65	57.53	49.04	92.86	52.50	84.69	28.88	40.42	47.77	71.67

Percentage of students in rural schools exceeding those in urban school in both the components. In attainment of mastery the picture is predictably reverse in that the percentage of students urban schools attaining mastery is higher than their rural counterparts. The ranges of percentage of urban students attaining mastery in both the components are quite high : in Letter Reading from 60.61% (Kalahandi) to 89.29% (Dhenkanal), in Word Reading from 40.42% (Kalahandi) to 92.86% (Dhenkanal). The ranges for the rural students are quite low. It is from 29.61% (Balangir) to 62.10% (Dhenkanal) for Letter Reading and 27.65% (Balangir) to 52.50% (Gajapati) for Word Reading.

Castewise Levels of Language Achievement

The percentage distribution of SC and ST taken together and other castes is given in Table 3.4.7. Like rural-urban comparison of non-achieving MLL and achieving mastery level students, the castewise comparison between SC & ST and others present similar trend of difference. The percentages of students securing 40% of marks or less in SC/ST category are less than those in the general caste group. And the percentage of general caste students are more than that for SC/ST in their respective districts.

Attainment in Numeracy

The mean achievement and standard deviation of the scores in numeracy part of the class 2 achievement test for each district is presented in Table 3.4.8.

The class 2 students of Dhenkanal district have the highest average score of 9.45 and those of Kalahandi district had the mean score of 5.93 in numeracy test which is minimum among the five districts. While the students population of Balangir seem to be the most homogeneous group (SD 3.96), those in Kalahandi are more varied (5.04) so far as the performance on numeracy test is concerned.

Table 3.4.7

Achievement of Class - 2 Students in Language (Caste wise)

Area	Levels	Balangir		Dhenkanal		Gajapati		Kalahandi		Mayapada	
		SC/ST	Others	SC/ST	Others	SC/ST	Others	SC/ST	Others	SC/ST	Others
Letter Reading	Zero	18.67	18.49	15.57	7.48	6.25	3.43	29.48	15.65	17.04	15.50
	Not Achieving MLL	28.31	27.17	20.49	9.73	27.34	14.22	24.70	23.13	16.18	8.50
	Achieving MLL	10.24	7.92	3.28	4.74	5.47	5.39	5.18	0.16	5.81	4.00
	Approaching Mastery	13.25	7.92	4.92	10.22	4.60	5.39	4.78	4.76	7.00	6.00
	Achieving Mastery	29.52	38.49	55.74	67.83	56.25	71.57	35.06	48.00	52.88	60.00
Word Reading	Zero	24.10	29.81	27.87	15.71	19.53	4.90	52.59	32.65	24.99	10.50
	No Achieving MLL	31.33	24.53	17.21	14.21	23.44	22.55	17.13	22.45	20.11	11.00
	Achieving MLL	4.82	6.79	6.56	5.74	3.12	3.92	3.59	3.40	0.71	4.50
	Approaching Mastery	7.83	5.66	9.02	6.23	6.25	5.39	1.59	2.72	2.90	0.50
	Achieving Mastery	31.93	33.21	39.34	58.10	47.86	63.24	25.10	30.70	44.98	59.50

Table 3.4.8
Achievement of Class-2 students in Numeracy

Districts	No of Students	Mean	SD
Balangir	431	6.91	3.96
Dhenkanal	523	9.45	4.18
Gajapati	332	9.23	4.62
Kalahandi	398	5.93	5.04
Rayagada	441	8.21	4.90

Comparison of attainment

The means and the standard deviation of the scores on numeracy are presented for comparison on the basis of gender (3.4.9), location (3.4.10) and Caste (3.4.11).

In genderwise distribution of means and standard deviations as evidenced in Table 3.4.9, it is seen that the mean of scores on numeracy of boys are more than that for girls. But only one difference in addition and subtraction component of the numeracy test is significant in Balangir district only. In no other districts the gender difference is conspicuously significant.

Table 3.4.9
Achievement of Class - 2 Students in Numeracy (Genderwise)

Area	Districts	Boys		Girls		Total	
		Mean	SD	Mean	SD	Mean	SD
Number Recognition	Balangir	3.64	1.68	3.29	1.76	3.48	1.73
	Dhenkanal	4.65	1.54	4.45	1.75	4.56	1.63
	Gajapati	4.27	1.85	4.12	1.90	4.22	1.87
	Kalahandi	3.20	2.25	3.09	2.19	3.16	2.23
	Rayagada	4.11	2.01	4.08	2.10	4.10	2.04
Addition and Subtraction	Balangir	3.82 ^a	2.83	2.97	2.75	3.42	2.82
	Dhenkanal	5.09	2.93	4.61	3.00	4.88	2.97
	Gajapati	5.17	2.97	4.70	3.38	5.00	3.13
	Kalahandi	2.77	3.27	2.75	3.14	2.76	3.22
	Rayagada	4.29	3.16	3.82	3.35	4.12	3.23

^a Different significant

Table 3.4.10

Achievement of Class - 2 Students in Numeracy (Locationwise)

Area	Districts	Rural		Urban	
		Mean	SD	Mean	SD
Number Recognition	Balangir	3.30	1.67	4.34	1.74
	Dhenkanal	4.42	1.66	5.73	0.67
	Gajapati	3.96	1.89	5.59	0.86
	Kalahandi	3.07	2.19	4.15	2.38
	Rayagada	3.92	2.05	4.07	2.09
Addition and Subtraction	Balangir	3.31	2.70	3.98	3.34
	Dhenkanal	4.66	2.97	6.78	2.20
	Gajapati	4.59	3.15	7.23	1.76
	Kalahandi	2.64	3.14	4.12	3.78
	Rayagada	3.94	3.18	5.18	1.63

* Different significant

Table 3.4.11

Achievement of Class - 2 Students in Numeracy (Castewise)

Area	Districts	SC/ST		Others		Total	
		Mean	SD	Mean	SD	Mean	SD
Number Recognition	Balangir	3.33	1.70	3.57	1.74	3.48	1.73
	Dhenkanal	4.18	1.77	4.68	1.57	4.56	1.63
	Gajapati	3.73	1.83	4.52	1.83	4.22	1.87
	Kalahandi	2.98	2.17	3.46	2.29	3.16	2.22
	Rayagada	3.84	2.11	4.40	1.91	4.09	2.04
Addition and Subtraction	Balangir	3.60	2.75	3.31	2.87	3.42	2.82
	Dhenkanal	4.32	3.60	5.06	2.92	4.88	2.97
	Gajapati	4.07	3.29	5.59	2.88	5.00	3.13
	Kalahandi	2.44	3.11	3.30	3.34	2.76	3.22
	Rayagada	3.62	3.24	4.71	3.13	4.12	3.23

* Difference significant

Table 3.4.12

Percentage of Class 2 Students Achieving Different Levels of Achievement in Mathematics (Genderwise)

Area	Levels	Balangir			Dhenkanal			Gajapati			Kalahandi			Rayagada		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Number Recognition	Zero	5.22	9.95	7.42	2.68	4.89	3.63	6.51	7.69	6.93	20.92	21.30	21.11	11.55	13.41	12.24
	Not Achieving MLL	40.43	47.76	43.85	18.46	24.00	20.84	24.19	27.35	25.30	29.29	31.45	30.15	20.58	19.51	20.18
	Achieving MLL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Approaching Mastery	23.48	17.91	20.88	19.13	13.78	16.83	16.74	11.11	14.76	11.72	15.72	13.32	16.61	12.80	15.19
	Achieving Mastery	50.87	24.32	27.84	59.73	57.30	58.70	52.56	53.55	53.01	58.06	51.46	55.43	51.26	54.27	52.38
Addition and Subtraction	Zero	15.12	28.83	23.37	12.42	14.47	13.39	14.45	23.50	19.70	11.00	14.00	12.24	24.32	33.32	25.65
	Not Achieving MLL	36.96	42.79	39.68	22.48	30.67	26.00	30.70	15.36	25.45	17.15	22.64	19.35	27.80	23.17	26.08
	Achieving MLL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Approaching Mastery	10.87	7.46	9.28	11.07	5.78	8.80	5.12	3.42	4.55	5.44	7.55	6.28	6.50	3.66	5.44
	Achieving Mastery	33.04	20.90	27.38	54.03	48.89	51.82	53.02	54.70	53.94	28.45	25.06	27.14	43.68	40.85	40.63

Table 3.4.13

Achievement of Class - 2 Students In Numeracy (Location wise)

Area	Levels	Balangir		Dhenkanal		Gajapati		Kalahandi		Rayagada	
		Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Hundred	Total	8.61	1.37	4.07	0.00	8.21	0.00	21.10	21.21	13.39	5.00
	Not Achieving	44.72	38.36	23.13	1.79	28.93	5.77	32.33	6.06	21.78	10.00
	Achieving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Approaching	23.09	8.22	17.99	7.14	16.07	7.69	13.70	9.01	17.06	3.33
	Exceeding	22.78	52.05	54.82	91.07	46.79	86.54	32.88	63.64	47.77	81.67
Fifty	Total	22.91	27.40	14.78	1.79	19.29	1.92	48.22	36.36	26.77	20.00
	Not Achieving	12.74	29.66	27.62	12.50	28.93	5.77	20.00	12.12	27.30	18.33
	Achieving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Approaching	10.17	4.11	9.42	3.57	4.29	5.77	6.30	6.06	6.30	0.00
	Exceeding	21.02	43.04	48.18	82.14	47.50	86.54	25.48	45.45	39.63	61.67

Table 3.4.14
Achievement of Class - 2 Students in Numeracy (Caste wise)

Area	Levels	Balangir		Dhenkanal		Gajapati		Kalahandi		Mayagadha	
		SC/ST	Others	SC/ST	Others	SC/ST	Others	SC/ST	Others	SC/ST	Others
Number Recognition	Zero	7.23	7.55	6.56	2.74	9.38	5.39	21.91	19.73	15.35	8.50
	Not Achieving MLL	45.78	42.64	19.64	21.20	28.12	23.53	33.86	23.81	20.75	19.50
	Achieving MLL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Approaching Mastery	24.10	18.87	27.87	13.47	21.88	10.29	12.75	14.29	16.60	13.50
	Achieving Mastery	29.52	38.49	55.74	67.83	56.25	71.57	35.86	48.30	52.28	66.00
Addition and Subtraction	Zero	24.10	29.81	27.87	15.71	19.53	4.90	52.59	32.65	21.99	18.50
	No Achieving MLL	31.33	24.53	17.21	14.21	23.44	22.55	17.13	22.45	22.41	11.00
	Achieving MLL	4.82	6.79	6.56	5.74	3.12	3.92	3.59	3.40	8.71	4.50
	Approaching Mastery	7.83	5.66	9.02	6.23	6.25	5.39	1.59	2.72	2.90	6.50
	Achieving Mastery	31.93	33.21	39.34	58.10	47.66	63.24	25.10	38.78	43.98	59.50

In the locationwise distribution of means (Table 3.4.10), the rural-urban divide is quite conspicuous. Not only the urban school students have higher mean scores in both the components of numeracy test i.e. Number Recognition and Addition and Subtraction but the rural-urban differences are significant in all districts except for Rayagada in the Number Recognition component.

The group means and standard deviations calculated for the two social groups i.e., SC/ST and other general presented in Table 3.4.11, reveals average performances of SC/ST students in numeracy is lower than the student belonging to general castes as observed in all the districts. But the significant difference in both Number Recognition and Addition and Subtraction could only be observable in Gajapati district.

Levels of Achievement

Genderwise distribution of percentage of boys and girls showing of different levels of attainment demonstrates two visible trends. First boys in every district outnumber girls in every district in approaching and achieving mastery whereas girls outnumber boys in securing zero and not achieving mastery in both the components of the test. Second, in both the components of numeracy, no student was in the level of achieving MLL in any of the districts. Highest percentage of students achieving mastery in numeracy were found in Dhenkanal closely followed by Gajapati.

A definite trend of rural-urban difference in the levels of achievement in numeracy could be observable in Table 3.4.13. On both the component, Number Recognition and Addition and Subtraction, the rural school children outnumbered their urban counterparts at three levels, i.e., securing zero, not achieving MLL, and Approaching mastery, invariably in all the districts. At the same time the urban students outnumbered the rural students in achieving mastery in numeracy in all the districts. It is natural to expect that in a particular region when

nonachievers are more in one of the dichotomous groups, the high achievers would be expected to be more in number in the other group. But in this case approaching mastery group. But in this case approaching mastery level learners follow the trend of low achievers rather than those in their higher level. But as observed in genderwise distribution there is no one in any of the five district in the achieving MLL group.

Unlike the previous two comparisons based on gender and location, caste-based distribution of percentage of students in attaining different levels of numeracy does not demonstrate any clear trend. Maximum percentage of SC/ST and others attaining mastery level are found in Gajapati district in both the components. In all the districts and in both the components the students belonging to other groups excel the respective SC/ST groups in acquiring mastery in numeracy. Again in number recognition, there is no student in the achieving MLL group.

In summary. the learners after first year of schooling demonstrate early promise in acquiring mastery in literacy and numeracy in moderately large number. The intergroup differences are along predictable lines and are, therefore, pose' no serious challenge to the planners.

Section V

Class 5 Students : Characteristics and Learning Achievement

The learning achievement of grade 5 students considered to reflect the effectiveness of primary schooling is the focus of analysis in this section. The major findings relating to the distribution pattern and background family and school characteristics and the achievement levels of grade 5 have been presented and discussed in terms of gender, location and caste.

The distribution of the target group

The sample consisted of 1801 grade 5 students from the five project districts with genderwise distribution given in Table 3.5.1.

Table 3.5.1

Genderwise Distribution of Class - 5 Students

District	Boys	Girls	Total Number
Bolangir	70.00	30.00	362
Dhenkanal	53.88	46.12	529
Gajapati	69.49	30.51	236
Kalahandi	65.60	34.39	282
Rayagada	68.11	31.89	392

From the table it is evident that boys outnumber the girls in all the districts which is quite similar to the class 2 distribution. The sex-ratio in these regions are quite high and in Rayagad and Gajapati districts is favourable to females, the natural expectation that

nearly equal number of boys and girls would be coming into the primary school system is not being translated to reality as a result the enrolment of girls is continuing to be quite low.

The students drawn as samples from rural and urban schools demonstrate (Table 3.5.2) a clear dominance of rural representation. More than 70 percent, and in cases of Kalahandi and Rayagada more than 80 percent, of the total student population in this grade hail from rural areas.

Table 3.5.2

Locationwise Distribution of Class - 5 Students

District	Rural	Urban	Total Number
Bolangir	74 59	25 41	362
Dhenkanal	71 46	28 54	529
Gajapati	76 27	23 73	236
Kalahandi	86 52	13.48	282
Rayagada	81 12	18 88	392

The castewise distribution of grade 5 students presented in Table 3.5.3 shows that other category students are prominent in Dhenkanal (79.58%) and Gajapati (63.56%). In all the districts except Dhenkanal, the ST groups were the smallest even though the tribals constitute substantial portion of the total population. The OBC and others combine constitutes more than 50 percent of the districts grade 5 students in all cases except Kalahandi. Similarly SC and ST combine is the majority only in Kalahandi district.

Table 3.5.3
Castewise Distribution of Class - 5 Students

District	SC	ST	OBC	Others	Total
Bolangir	18.23	14.92	38.67	28.18	100.00
Dhenkanal	10.21	7.75	2.46	79.58	100.00
Gajapati	13.14	9.32	13.98	63.56	100.00
Kalahandi	49.29	4.61	33.69	12.41	100.00
Rayagada	23.72	20.15	26.02	30.10	100.00
Total	21.27	11.60	21.27	45.86	100.00

The modal age of class 5 students in all the districts is 10 years (Table 3.5.4) closely followed by the number students of 11 years of age. The number of older students aged 12 years ranges from 7.70 percent in Gajapati district to 18.60 percent in Dhenkanal district. The reasons of such overage children in class 5 in these areas can be attributed to enrolment at late age and repetition in any class.

Parental Education and Occupation

Studies have confirmed that parental education has direct bearing on the education of their children. The higher the educational level of the parents particularly that of the mother, the better is the level of achievement and longer is the continuance in the ladder of schooling system. But the picture that evolves from the Table 3.5.5 is quite disturbing. Illiterate parents constitute the single largest groups in all the districts with the percentage of illiterate mothers ranging from 35.7 in Dhenkanal district to 53.19 percent in Kalahandi district while that of the illiterate fathers is comparatively lower ranging

Table 3.5.4
Agewise Distribution of Class - 5 Students

Districts	Age (Years)	Boys	Girls	Total
B o l a n g i r	9	6.70	2.80	5.50
	10	54.50	52.30	53.90
	11	27.50	30.80	28.50
	12	9.40	13.10	10.50
	13	1.20	0.90	1.10
	14	2.80	0.00	0.60
	15	0.00	0.00	0.00
D h e n k a n a l	9	7.40	5.70	6.60
	10	44.20	40.60	42.50
	11	31.20	33.60	32.30
	12	14.00	17.20	15.50
	13	2.10	2.90	2.50
	14	0.70	0.00	0.40
	15	0.40	0.00	0.20
G a j a p a t i	9	2.40	1.40	2.10
	10	63.40	68.10	64.80
	11	25.60	25.00	25.40
	12	7.30	4.20	6.40
	13	1.20	1.40	1.30
	14	0.00	0.00	0.00
	15	0.00	0.00	0.00
K a l a h a n d i	9	12.40	4.20	9.90
	10	42.70	48.50	44.70
	11	33.50	36.10	34.40
	12	7.00	6.20	6.70
	13	2.70	4.10	3.20
	14	1.10	0.00	0.70
	15	0.50	0.00	0.40
R a y a g a d a	9	8.60	7.20	8.20
	10	52.80	55.20	53.60
	11	23.20	31.20	25.80
	12	9.70	4.00	7.90
	13	4.50	1.60	3.60
	14	1.10	0.80	1.00
	15	0.00	0.00	0.00

Table 3.5.5

Distribution of Class 5 Students according to Educational Status of Parents

Occupation	Balangir		Dhenkanal		Gajapati		Kalahandi		Rayagada	
	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother
Not Applicable	9.12	8.29	6.81	4.52	4.24	3.39	3.90	5.32	5.36	3.06
Illiterate	15.75	41.99	12.10	35.70	18.22	45.76	26.24	53.19	32.65	48.47
Literate	4.14	2.49	0.57	0.95	6.36	5.54	2.84	3.19	1.79	0.26
Upto Class 5	20.17	16.85	13.25	30.81	19.49	13.99	19.15	9.93	13.01	16.58
High School	18.23	13.81	32.51	17.58	26.27	17.37	15.25	7.45	20.66	15.30
Higher Secondary	4.14	1.93	2.08	0.76	9.32	2.97	2.13	0.35	4.85	2.55
Degree	6.35	1.38	6.99	2.46	8.90	1.69	2.48	0.35	8.67	3.00
Don't know	22.10	13.26	18.70	7.18	7.20	9.32	28.01	20.21	13.01	10.71

from 12.10 percent in Dhenkanal to 32.65 percent in Rayagada. The number of parents with primary schooling experience do not show any gender base trend. While in some districts, fathers with educational status upto class 5 outnumber mothers with equal qualifications, in other districts (Dhenkanal and Rayagada) the portion is just the reverse. The parents with higher education (i.e. degree and above) are shockingly few in number. One of the major reasons for low enrolment, high dropout rates and poor parental assistance in education of their children in this region might be attributed to the low level of parental education.

Father, in a patriarchal family, is the main earning member and thus exerts decisive influence on the education of children. Table 3.5.6 depicts the pattern of distribution of class 5 students according to father's occupation. It is evident from the table that agricultural activities is being pursued by majority. Although the districts under study have large forest areas and a prominent portion of the population is comprised of scheduled tribes who traditionally are dependent upon the forest products, very small portion, as is evident from the table of the sample are continuing collection of forest products as a profession.

Preschool Experience

The number of students having preschool experience is quite meagre as evidenced from Table 3.5.7. Only 12 from among 362 i.e. 3.3 percent of Balangir sample which is maximum among the class 5 sample. It is not that the preschool facilities are not available, but such facilities in the form of Balwadis and Anganwadis under ICDS are not being utilized by the inhabitants. This is not due to the apathy rather due to lack of awareness and economic compulsions of parents. It is observed that the agencies organise such schemes and the members of the locality are not in same wavelength in providing valuable preschool experience.

Table 3.5.6

**Percentage Distribution of Class - 5 Students
According to Father's occupation**

Occupation	Bolangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Household	0.28	0.76	0.42	0.71	0.51
Domestic Servant	2.76	0.19	0.00	0.71	1.62
Street Vendor	1.66	1.52	0.42	0.35	1.06
Manual Unskilled Worker	6.06	2.08	1.27	1.42	2.01
Skilled Worker	6.63	4.92	4.24	2.13	7.91
Clerical Worker	3.87	2.08	2.12	0.71	6.63
Sell Employed	7.73	6.44	6.36	3.55	11.22
Employer / Businessman	1.38	1.14	0.42	1.06	1.53
Manager / Sr. Officer	2.49	1.52	1.27	0.71	3.92
Others	19.06	21.72	46.61	26.95	28.83
Farmer	28.73	47.16	21.19	53.90	17.09
Broiler Firm	0.55	0.00	0.00	0.00	0.00
Wage earning	13.81	5.87	8.47	6.38	12.50
Forest Products Collection	0.55	0.19	2.54	0.35	1.53
Not applicable or could not answer	4.42	4.36	4.66	1.06	2.04

Table 3.5.7

Distribution of Class - 5 Students Having Undergone Preschool Education

District	Category of School	Nos
Bolangir	ICDS/Nursery	12
Dhenkanal	ICDS/Nursery	3
Gajapati	ICDS/Nursery	5
Kalahandi	ICDS/Nursery	4
Rayagada	ICDS/Nursery	1

Nutritional Status

Whether the children have access to minimum nutritional provisions or not can be comprehended from the Table 3.5.8. Barring the morning and afternoon meals in Kalahandi, more than 90 percent students in each district are always getting the basic meals at three times a day. But the figures shown under "sometimes" and "never" exposes the extent of deprivation of minimum basic nutritional requirements.

Early nutritional deficiency hinders growth and directly affects the ability to learn. Providing mid-day meals to primary school children is an action in the right direction to ward off vital deficiencies at the early stage of life.

Academic Support from Family

Family shapes the early life of the learners and provides succor for schooling. The gender bias in support of boys is evident from the Table 3.5.9. While the maximum support is accorded in Gajapati district (85.59%) and

Table 3.5.8

Nutrition Status of Class 5 Students

Districts	Always			Sometimes			Never		
	Morning	Afternoon	Evening	Morning	Afternoon	Evening	Morning	Afternoon	Evening
Balangir	299 82.60	330 91.20	326 90.10	62 17.10	32 8.80	33 9.10	1 0.30	0 0.00	3 0.80
Dhenkanal	454 85.80	507 95.80	486 91.90	62 11.70	22 4.20	23 4.30	13 2.50	0 0.00	20 3.80
Gajapati	228 96.60	232 98.30	233 98.70	8 3.40	3 1.30	2 0.80	0 0.00	1 0.40	1 0.40
Kalahandi	214 75.90	237 84.00	256 90.80	66 23.40	43 15.20	26 9.20	2 0.70	2 0.70	0 0.00
Rayagada	378 96.40	366 93.40	385 98.20	14 3.60	19 4.80	6 1.50	0 0.00	7 1.80	1 0.30

minimum in Kalahandi district (49.29%).

Table 3.5.9

Percentage of Class - 5 Students Getting Academic Support from Family

District	Boys	Girls	Total
Bolangir	36.46	17.40	53.86
Dhenkanal	37.81	29.87	67.68
Gajapati	58.47	27.12	85.59
Kalahandi	29.08	20.21	49.29
Rayagada	28.57	21.94	50.51

Father or guardian is the main source of support (Table 3.5.10). In Balangir, Kalahandi and Rayagada the elder siblings provide the academic support more than their mothers possibly because of poor literacy rate among women and/or the women folks, particularly belonging to SC and ST are equally engaged like their male counterparts in earning their livelihood. There is no significant gender difference in the perception of the learners regarding the source of academic support in the family. In Dhenkanal and Rayagada more percentage of students derive support from the elder brothers and sisters. while in other district father is perceived as the main source of sustenance.

The girls, unlike in other underdeveloped regions do not perceive any discrimination as they get nearly equal support from family members. These findings, from such an underdeveloped region in the context of discrimination of girls child is hopefully a case in point for even more developed regions.

Table 3.5.10

**Total of Class - 5 Students
According to the Assistance Provided by the Family Members**

District	Gender	Father/Guardian	Mother	Elder Brother/Sister	Others
Balangir	Boys	38.92	17.84	34.05	9.19
	Girls	41.11	18.89	28.89	11.11
Dhenkanal	Boys	29.22	25.20	32.17	13.40
	Girls	24.64	30.00	31.43	13.93
Gajapati	Boys	41.58	32.67	21.78	3.96
	Girls	40.00	36.55	19.31	4.14
Kalahandi	Boys	39.68	21.43	25.40	13.49
	Girls	41.94	22.58	30.11	5.38
Rayagada	Boys	35.40	17.39	36.02	11.18
	Girls	32.31	20.00	34.62	13.08

Educational Aspirations

The learners' desire for higher education recorded in the Table 3.5.11 demonstrates their limited vision. Most of them choose between three levels i.e., secondary, higher secondary or degree. Significantly sizeable percentage (ranging from 29.82% to 37.3%) of students in Dhenkanal, Gajapati and Kalahandi districts confine their educational aspirations to secondary stage, girls having slight edge over boys except in Kalahandi. In all the districts except Kalahandi the students target attaining graduation stage. A disheartening picture is that a sizeable percentage students, even after four years of primary

Table 3.5.11

Percentage of Class 5 Students According to the Educational Aspiration

Level	Balangir			Dhenkanal			Gajapati			Kalahandi			Rayagada		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Don't want to Study	13.73	14.02	13.81	7.02	7.79	7.37	11.59	13.89	12.29	11.35	10.31	10.99	4.12	1.60	3.32
Don't Know	6.67	9.35	7.46	3.16	2.87	3.02	2.44	2.78	2.54	15.14	15.46	15.25	15.36	6.40	12.50
5th Class	1.57	0.93	1.38	0.35	0.00	0.19	1.63	1.39	1.59	0.54	1.03	0.71	0.75	1.60	1.02
8th Class	3.92	8.41	5.25	3.86	13.93	8.51	4.27	8.33	5.51	5.41	7.22	6.03	4.87	4.80	4.85
10th Class	16.08	18.69	16.85	29.82	37.30	33.27	31.71	33.33	32.20	33.51	31.96	32.98	22.47	19.20	2.43
12th Class	22.75	20.56	22.10	15.09	11.89	13.61	11.59	4.17	9.32	15.14	18.56	16.31	14.98	21.60	17.09
Graduation	26.67	21.50	25.14	28.42	21.72	25	-	39	25.00	16.22	12.37	14.89	26.72	27.20	25.51
Management Programme (Engineering/Medicals/ITI)	8.63	6.54	8.01	12.28	4.5	8.70	12.20	11.11	11.86	2.70	3.09	2.84	12.73	17.60	14.29

schooling do not have any educational ambition or they feel confused. This sense of limited ambition or without any clear vision might have been induced by the lower socio-economic conditions and the lack of parental visions about them.

The arguments for the second factor i.e., the desire of the parents not to prosecute further studies draws support from the data presented in Table 3.5.12. Unwillingness of parents and the pressure to assist the household work are the two reasons advanced by the majority of the learners in class 5 who do not intend to study further. Quite a few consider learning to be difficult task other reasons do not evoke a definite pattern as ascertained from the students. Marriage is not considered as a plausible factor for not continuing further study.

Possession of Textbook

Textbooks are considered essential in school learning. The classroom transactions, more in higher grades, are textbook based. Therefore, possession of textbooks indicates parents care for children's learning. The rural-urban and boy-girl divisions in the possessions of number of books are presented in Table 3.5.13. It only reveals the dichotomy based on locality and gender. In all the cases urban school students lag behind their rural counterparts. Similarly the boys in all the types of possession of textbooks are ahead of girls in all districts.

Class 5 Students' Learning Achievement

Two tests : Language Achievement Test (LAT) and Mathematics Achievement Test (MAT) were administered over 1801 class 5 students of five districts to assess their learning level at the final year of primary schooling. The profiles of the tests have been described in Tables 1.5 and 1.6. The scores were then presented in terms of gender, location and castewise. The levels of achievement both in language and mathematics were then determined to

Table 3.5.12
Reasons for Students not intending to study in Class - 5 (Percentage)

Reasons for not intending to study	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Not applicable/ Cannot say	35 9.67	24 4.54	18 7.63	14 4.96	10 2.55
Parents donot want	5 1.38	6 1.13	4 1.69	5 1.77	1 0.26
To help in home work	4 1.10	2 0.38	3 1.27	8 2.84	2 0.51
Earning to live	1 0.28	0 0.00	0 0.00	1 0.35	0 0.00
Training in home work	0 0.00	0 0.00	2 0.85	1 0.35	0 0.00
Study is very difficult & not charming	4 1.10	3 0.57	1 0.42	1 0.35	0 0.00
Cannot say for Books and Notes	1 0.28	3 0.57	0 0.00	0 0.00	0 0.00
Body not well	0 0.00	1 0.19	1 0.42	1 0.35	0 0.00
Marriage	0 0.00	0 0.00	0 0.00	0 0.00	0 0.00

Table 3.5.13

**Percentage of Class-5 Students Having Text-Books
Localitywise & Genderwise**

District	No. of Books	Rural	Urban	Boys	Girls
B o l a n g i	0	77.78	22.22	72.73	27.28
	1 to 3	88.50	11.50	66.37	33.63
	4 & above	62.00	38.00	72.00	28.00
D h e n k a n a i	0	67.19	32.81	48.44	51.56
	1 to 3	72.63	27.37	52.63	47.37
	4 & above	72.88	27.12	56.54	43.46
G a l a p a l i	0	92.86	7.14	64.29	35.71
	1 to 3	96.23	3.77	69.81	30.19
	4 & above	60.63	39.37	71.65	28.35
K a l a h a n d i	0	89.90	10.10	62.63	37.37
	1 to 3	91.40	8.60	67.74	32.26
	4 & above	77.78	22.22	66.67	33.33
R a y a g a d a	0	91.41	8.59	83.59	16.41
	1 to 3	86.00	14.00	65.00	35.00
	4 & above	70.12	29.88	57.93	42.07

assess the present learning status of the learners in these two context areas.

Achievement on Language Test

There are total 84 items carrying as many marks. The test has two sections, word meaning with 40 items and Reading comprehension with 44 items.

The mean achievement on LAT of class 5 students of the project districts are presented in Table 3.5.14.

Table 3.5.14

Mean Achievement of Class - 5 Students in Language

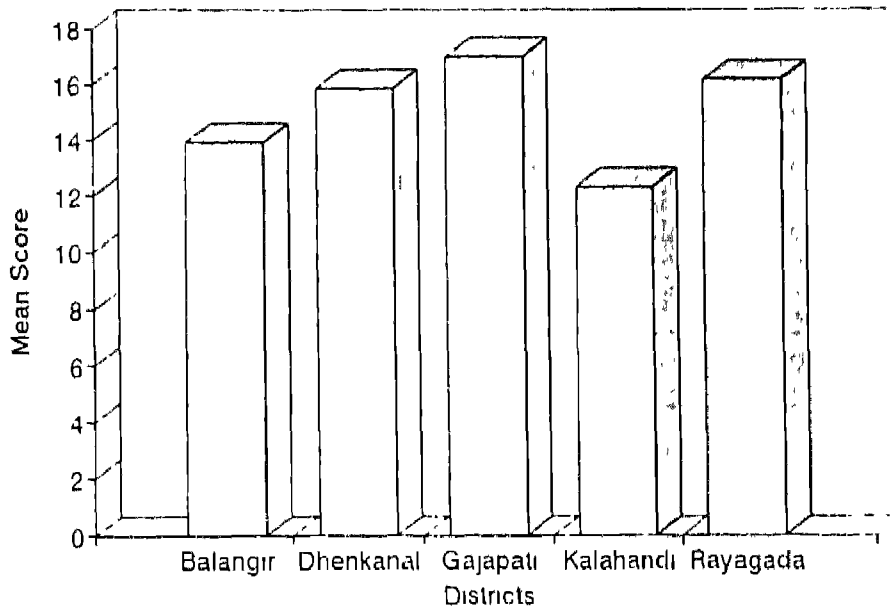
District	N	Mean	SD
Balangir	362	34.67	7.15
Dhenkanal	529	36.07	5.65
Gajapati	236	33.28	6.05
Kalahandi	282	34.75	5.91
Rayagada	392	36.88	6.17

The range of the mean scores is quite small with minimum of 33.28 in Gajapati district and maximum of 36.88 in Rayagada district.

Gender difference in Language Achievement

The total score of each respondent was then split into the two components i.e., on Word Meaning and Reading Comprehension were compared on gender, location and caste basis. The mean scores and standard deviation on Word Meaning and Reading Comprehension given in Table 3.5.15. The mean performance on the Word Meaning part is consistently higher than that on the Reading Comprehension in all the districts. The gender difference is found to

Mean Achievement of Class-5 Students In Language



Mean Achievement of Class-5 Students in Language : Word Meaning (Genderwise)

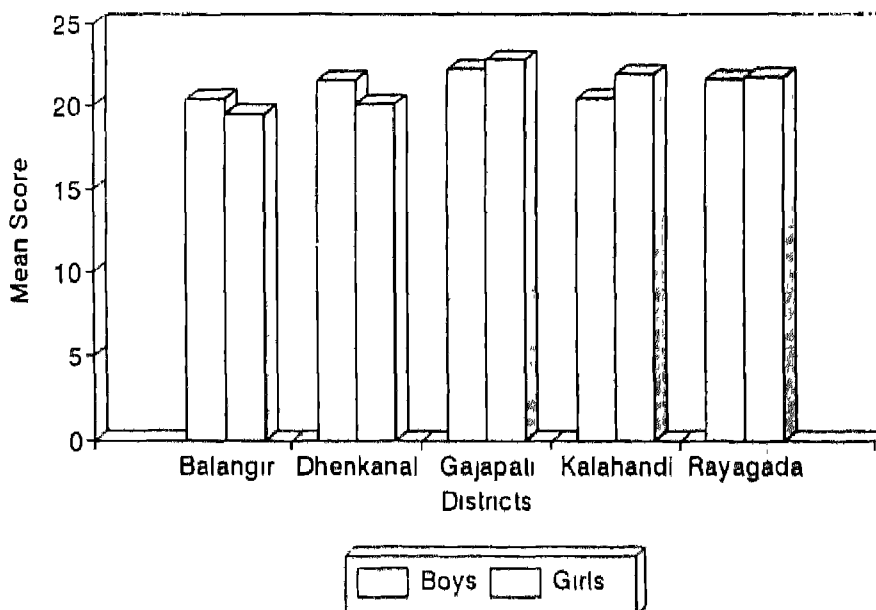


Table 3.5.15
Achievement of Class-5 Students in Language (Genderwise)

Area	Districts	Boys		Girls		Total	
		Mean	SD	Mean	SD	Mean	SD
Word Meaning	Balangir	20.43	7.07	19.51	7.83	20.1	7.30
	Dhenkanal	21.50	6.64	20.08	6.41	20.84	6.57
	Gajapati	22.18	5.44	22.80	4.90	19.98	5.85 *
	Kalahandi	20.43	5.16	21.84	5.25	21.35	6.03
	Rayagada	21.54	5.45	21.66	5.42	20.66	5.83
Reading Comprehension	Balangir	14.62	7.01	14.24	7.05	14.51	7.02
	Dhenkanal	15.09	6.06	14.50	5.58	15.23	4.23
	Gajapati	16.75	7.12	17.27	8.18	13.40	6.23 *
	Kalahandi	12.75	5.10	14.39	6.37	13.40	5.88
	Rayagada	15.94	6.36	17.76	6.35	16.22	6.28 *

* The gender differences are significant.

to be significant in the Word Meaning component only in Gajapati district whereas it was significant in Gajapati and Rayagada districts on the Reading Comprehension part. In all these three significant differences it is interesting to note that the girls are superior in performance to boys in the respective districts.

Locationwise distribution of scores

The scores when divided on the two components based on rural-urban differentiation it can be obtained (Table 3.5.16) that students in urban schools secure higher scores than their rural counterparts in all districts. The significant locational differences in the performance in Word Meaning can be seen in cases of Dhenkanal and Rayagada and that for the Reading Comprehension is observed in all the districts except in Kalahandi. While studying these high and wide significant rural-urban differences in language achievement, one need to keep in mind that the rural sample size (1390) is much larger than the urban sample (411). Again the urban school children are more exposed to the outside world and have developed better test sensitivity than their rural counterparts.

Castewise Distribution of Scores

The mean and standard deviations of the scores on Word Meaning and Reading Comprehension have been arranged on caste basis in the Table 3.5.17. The mean scores of other castes are found to be higher than other three groups in Balangir, Kalahandi, and Rayagada districts. The ST students were better than others in Dhenkanal(WM) Gajapati (in WM and RC).

The significant between - group differences can be observed on (a) on Word Meaning and (b) Reading Comprehensions.

- i) between SC , ST combine and OBC in Balangir and Rayagada districts;
- ii) between SC/ST and others in Kalahandi and Rayagada districts;

Table 3.5.16
Achievement of Class-5 Students in Language (Locationwise)

Area	Districts	Rural		Urban		Total	
		Mean	SD	Mean	SD	Mean	SD
Word Meaning	Balangir	19.97	7.03	20.70	8.06	20.16	7.30
	Dhenkanal	20.54	6.49	21.59	6.73	20.84	6.57
	Gajapati	22.38	5.51	22.32	4.48	19.98	5.85
	Kalahandi	20.96	5.08	20.60	6.14	21.35	6.03
	Rayagada	21.30	5.36	22.77	5.97	20.66	5.83
Reading Comprehension	Balangir	14.04	6.53	15.90	8.18	14.51	7.02
	Dhenkanal	14.24	5.31	16.29	6.81	15.23	4.23
	Gajapati	16.28	7.80	18.91	5.82	13.40	6.23
	Kalahandi	13.16	5.46	14.28	6.51	13.40	5.80
	Rayagada	15.84	6.23	19.43	6.37	16.22	6.20

Table 3.5.17
Achievement of Class-5 Students in Language (Castewise)

Area	Districts	SC		ST		OBC		Others	
		Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D
Word Meaning	Balangir	17.78	7.31	20.72	6.26	20.23	6.96	21.29	7.96
	Dhenkanal	19.79	6.54	21.95	6.59	18.46	6.33	20.94	6.57
	Gajapati	22.54	5.93	23.59	6.50	21.51	5.43	22.34	4.91
	Kalahandi	20.66	4.87	22.23	6.11	20.86	5.65	22.31	5.05
	Rayagada	20.19	5.19	21.05	4.71	22.96	5.74	21.82	6.58
Reading Compre- hension	Balangir	12.84	5.74	14.81	6.41	14.17	7.07	15.89	7.78
	Dhenkanal	14.50	6.22	14.65	4.61	15.30	4.60	14.86	5.94
	Gajapati	17.41	7.07	18.77	9.52	17.30	6.51	16.44	7.4
	Kalahandi	12.90	5.43	10.92	3.61	13.44	5.73	15.48	6.14
	Rayagada	14.80	5.80	14.82	5.22	18.86	6.51	15.60	5.98

Table 3.5.18
Class-5 Students Achievement in Language (Genderwise) of Different Levels

Area	Levels	Balangir			Dhenkanal			Gajapati			Kalahandi			Rayagada		
		Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Word Meaning	Zero	2.35	4.67	3.04	3.51	1.64	2.65	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.25
	Not Achieving MLL	47.06	46.73	46.96	33.33	52.05	41.97	35.37	29.17	33.47	44.86	35.05	41.49	40.45	37.80	39.59
	Achieving MLL	30.20	24.30	28.45	34.39	22.95	29.11	35.37	30.56	33.90	32.96	41.24	35.82	32.21	35.43	33.25
	Approaching Mastery	12.16	14.02	12.71	20.70	17.21	19.09	21.95	36.11	26.27	19.46	18.56	19.15	19.48	20.47	19.80
	Achieving Mastery	8.24	10.28	8.84	8.07	6.15	7.18	7.32	4.17	6.36	2.70	5.15	3.55	7.49	6.30	7.11
Reading Comprehension	Zero	3.14	1.87	2.76	3.86	1.64	2.84	0.61	1.39	0.85	1.62	2.06	1.77	0.75	0.80	0.77
	Not Achieving MLL	84.13	84.11	84.25	85.96	88.52	87.15	79.27	76.39	78.39	92.97	84.54	90.07	83.15	76.00	80.87
	Achieving MLL	3.92	4.90	4.14	5.61	6.56	6.05	7.93	4.17	6.78	4.86	7.22	5.67	8.99	12.00	9.95
	Approaching Mastery	5.88	8.41	6.63	3.51	3.29	3.40	10.98	15.26	12.29	0.54	5.15	2.13	5.55	9.50	7.24
	Achieving Mastery	2.75	0.93	2.21	1.05	0.00	0.57	1.22	2.76	1.69	0.00	1.09	0.35	1.12	1.50	1.28

111) between OBC and others in Kalahandi district.

The superiority of ST students is an encouraging result in the context of such an underdeveloped region with large concentration of tribals.

Levels of Achievement in Language

For ensuring quality of education mere pass mark (30% of total mark) is not sufficient. Quality becomes evident when almost all the students perform competently at the mastery level. The levels of achievement used in this study are defined as :

1. Zero Level : Percentage of students having a score of zero.
2. Not Achieving MLL : Percentage of students scoring more than zero but less than 40 percent.
3. Achieving MLL : Percentage of students scoring between 40 to 60 percent.
4. Approaching Mastery : Percentage of students scoring between 61-79 percent.
5. Achieving Mastery : Percentage of students scoring 80 percent and above.

When the efforts are being made to enhance the quality of learning it becomes imperative to ascertain the existing levels of learning as per the above categorization of levels.

Genderwise Levels of Achievement in Language

The percentages of boys and girls in the sample achieving different levels are presented in Table 3.5.18. High percentages of learners below MLL level in Word Meaning are prevalent equally among boys and girls in all the districts ranging from 33.47 percent in Gajapati to 50 percent in Balangir district. This is still higher in Reading Comprehension with more than a staggering percentage 81 percent in all the districts with highest of 91.84 percent in Kalahandi district. The gender variation

Table 3.5.19

Class-5 Students Achievement in Language (Locationwise) of Different level

Area	Levels	Balangir		Dhenkanal		Gajapati		Kalahandi		Rayagada	
		Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Word Meaning	Zero	2.59	4.34	2.91	1.98	0.00	0.00	0.00	0.00	0.31	0.00
	Not Achieving MLL	48.52	42.39	43.39	38.41	34.44	30.35	41.80	39.47	41.82	28.38
	Achieving MLL	30.00	23.91	29.38	28.48	33.33	35.71	35.65	36.84	32.38	17.84
	Approaching Mastery	11.48	16.30	18.51	20.53	25.55	28.57	19.07	15.79	19.50	21.62
	Achieving Mastery	1.41	15.64	5.83	10.60	0.60	5.36	2.87	7.89	5.97	11.10
Reading Comprehension	Zero	2.22	4.35	2.91	2.65	1.11	0.00	1.22	5.26	0.63	1.35
	No MLL	86.29	76.76	91.00	77.48	78.33	78.57	90.57	86.84	84.28	66.23
	Achieving MLL	4.44	3.26	4.23	10.60	6.11	8.93	6.14	2.03	8.18	17.57
	Approaching Mastery	5.56	9.78	1.59	7.95	12.77	10.71	1.64	5.26	5.97	12.15
	Achieving Mastery	1.48	3.34	0.00	1.32	1.66	1.80	0.40	0.00	0.94	2.70

in these cases is marginal. As compared to it, the percentage of students achieving mastery in both the components is quite low. In Word Meaning the highest percentage of 10.28 of girl students of Balangir achieved mastery level with the lowest of 2.7 percent of boys in Kalahandi, the gender difference being not pronounced. In the Reading Comprehension the percentage acquiring mastery level is quite meagre varying from zero percent to 2.78 percent without any perceptible gender difference.

Locationwise Levels of Language Achievement

In the rural-urban split of subjects in nearly all levels of achievement the rural school children outnumber the urban counterparts even in achieving mastery (Table 3.5.19). The comparative large size of rural samples than the urban sample might have caused such disparity than the real difference per se.

Castewise Levels of Language Achievement

The trend of distribution in castewise split is no different from the genderwise distribution. ^(Tables 3.5.19, 20) While in both components the largest concentration of percent distribution is below the achieving MLL and the percentage of students achieving mastery is comparably too low. There is no perceptible differentiation in the distribution on the basis of caste. While 16.67 percent other castes in Balangir has attained mastery, 14.63 percent of ST students of Dhenkanal and 12.90 percent of SC students of Gajapati district marched the last level. In the Reading Comprehension the highest percentage is only 4-9 percent students of general caste acquired mastery.

Achievement in Mathematics

The Mathematics Achievement Test (MAT) has 40 items each carrying one mark. The profile of the MAT gives the details of the content areas and item distributions. Out of the maximum of 40 marks the average marks secured by the class 5 students in the project district (Table 3.5.21) is below 50 percent level. The highest of the mean scores of 17.0 and lowest of 12.30 are observed

in Gajapati and Kalahandi districts respectively. The scatter of scores is low in Kalahandi and even in rest of the districts.

Table 3.5.21

Mean Achievement of Class - 5 Students in Mathematics

District	N	Mean	SD
Balangir	362	13.90	6.04
Dhenkanal	529	15.89	6.37
Gajapati	236	17.00	6.45
Kalahandi	282	12.30	4.97
Rayagada	392	16.18	6.25

Gender Difference in Mathematics Achievement

From the Table 3.5.22 it is seen that in Dhenkanal and Gajapati districts the mean score in MAT of boys are significantly higher than those of girls in the respective districts. Although the mean scores of girls in the Mathematics test in Balangir and Rayagada districts are larger than the boys' mean score in those districts, the difference is not significant. Unlike other underdeveloped society where gender discrimination is a fact of life these results demonstrates a reassuring departure in that girls are nearly at par with boys so far as performance in mathematics is concerned.

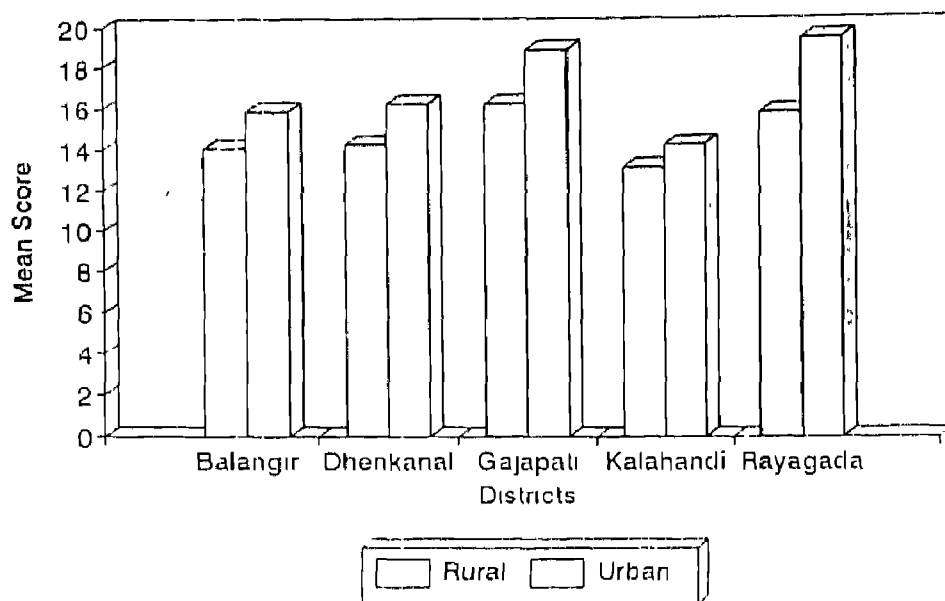
Locationwise Difference in Mathematics Achievement

From the Table 3.5.23, it is seen that the students of urban schools are performing significantly at a higher level than the rural school children except in Balangir. Even in Balangir the children in urban schools have

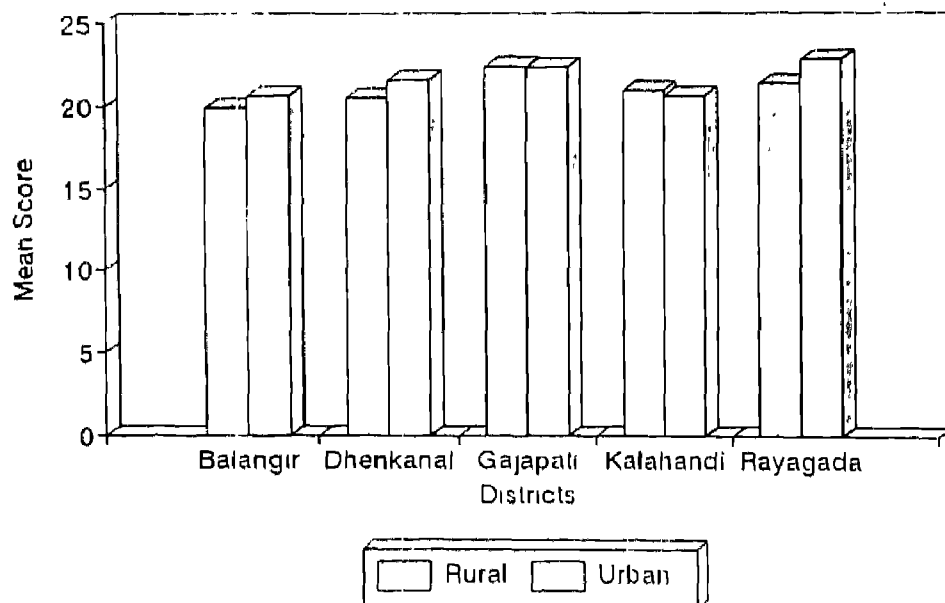
Table 3.5.20
Class-5 Students Achievement in Language (Castewise) of Different Levels

Area	Levels	Balangir					Dhenkanal					Gajapati					Kalahandi					Rayagada				
		SC	ST	OBC	Others	SC	ST	OBC	Others	SC	ST	OBC	Others	SC	ST	OBC	Others	SC	ST	OBC	Others	SC	ST	OBC	Others	
Word Meaning	Zero	4.55	1.85	3.57	1.96	0.00	2.44	7.69	2.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Not Achieving MLL	59.09	50.00	42.86	43.14	50.00	39.02	38.46	41.33	45.16	27.27	30.30	32.67	43.88	46.15	44.21	22.86	52.89	44.30	31.37					32.20	
	Achieving MLL	28.79	27.78	32.86	22.55	27.78	26.83	53.85	28.74	22.58	18.18	39.39	37.33	36.69	38.46	28.47	48.57	25.81	37.97	41.18					29.66	
	Approaching Mastery	4.55	14.81	13.57	15.69	16.67	17.07	0.00	20.19	19.15	45.45	27.27	24.67	17.96	7.69	20.00	25.71	16.13	15.19	19.61					26.27	
	Achieving Mastery	3.03	5.56	7.14	16.67	5.56	14.63	0.00	6.89	12.90	9.09	3.03	5.33	1.44	7.69	6.32	2.86	4.30	2.53	7.84					11.86	
Reading Comprehension	Zero	3.03	0.00	4.29	1.96	3.70	2.44	0.00	2.85	0.00	0.00	0.00	0.00	0.72	0.00	3.16	2.86	0.00	0.00	1.96					0.83	
	Not Achieving MLL	87.88	85.19	82.86	83.33	83.33	95.12	92.31	86.70	80.65	59.09	57.06	82.43	92.09	100.00	87.37	86.71	88.17	89.87	76.47					72.88	
	Achieving MLL	7.58	5.56	4.29	0.98	5.56	0.00	7.65	6.65	3.23	9.09	12.12	6.08	5.04	0.00	8.42	2.86	6.45	10.13	14.17					8.47	
	Approaching Mastery	1.52	7.41	7.14	8.82	7.41	2.44	0.00	3.09	12.90	13.82	12.12	5.46	1.44	0.00	1.05	8.57	4.30	0.00	4.90					16.10	
	Achieving Mastery	0.00	1.86	1.43	4.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.06	0.00	1.96					1.69	

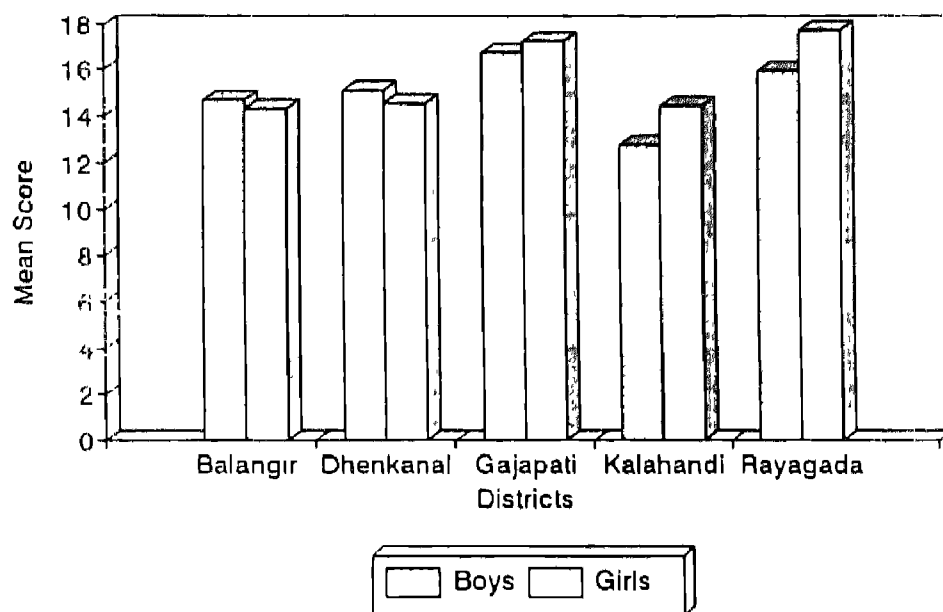
Mean Achievement of Class-5 Students In Language : Reading Comprehension



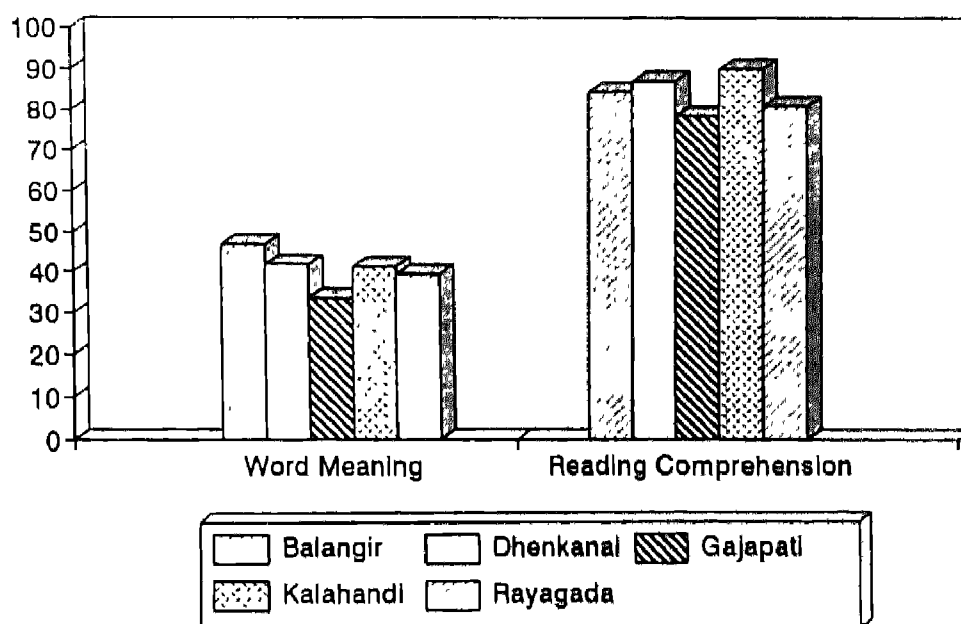
Mean Achievement of Class-5 Students In Language : Word Meaning



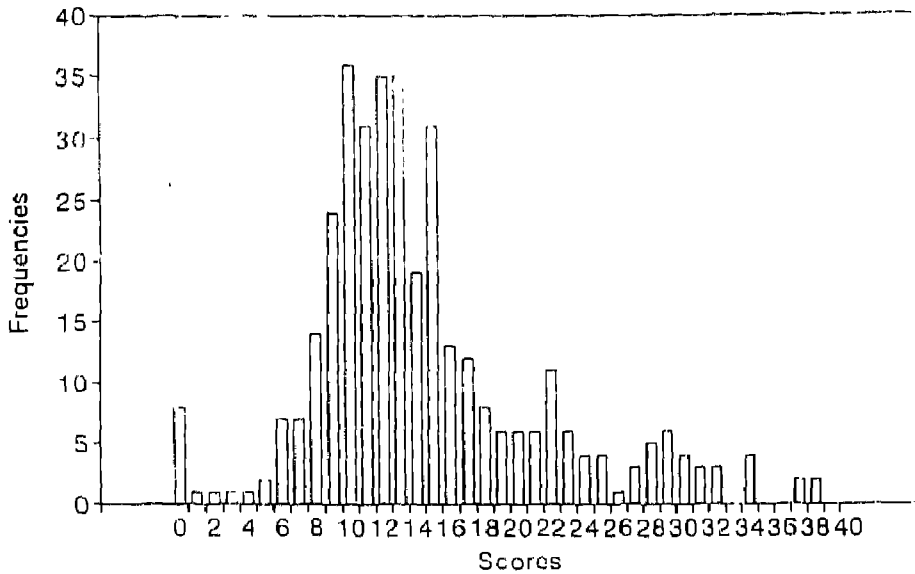
Mean Achievement of Class-5 Students in Language : Reading Comprehension



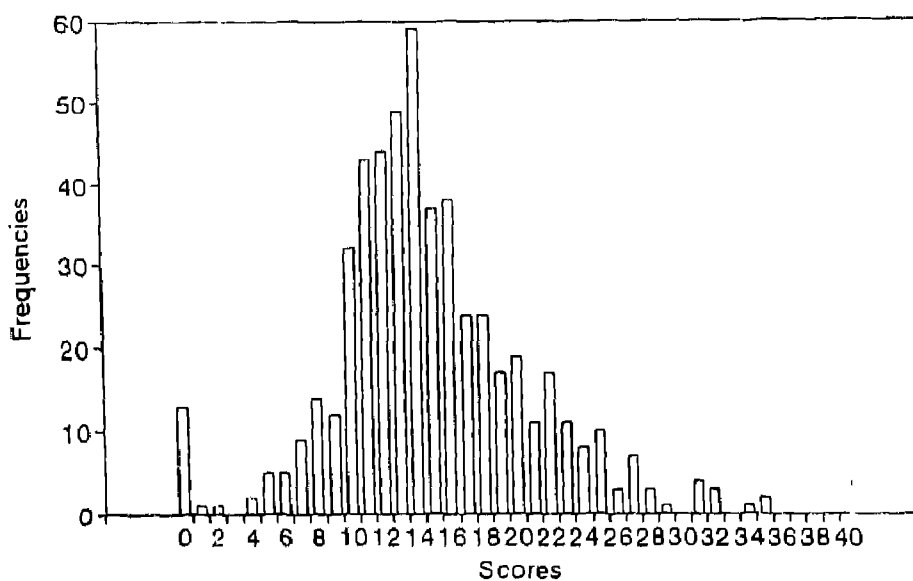
Percentage of Class-5 Students in Language Not Achieving MLL



Score Frequency : Class-5 Students
Reading Comprehension : Dist: Balangir

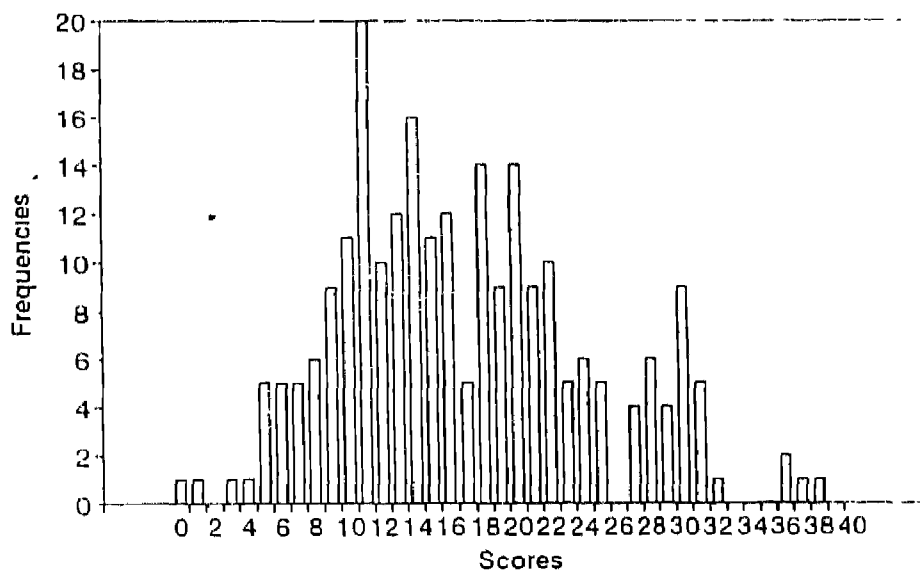


Score Frequency : Class-5 Students
Reading Comprehension : Dist : Dhenkanal



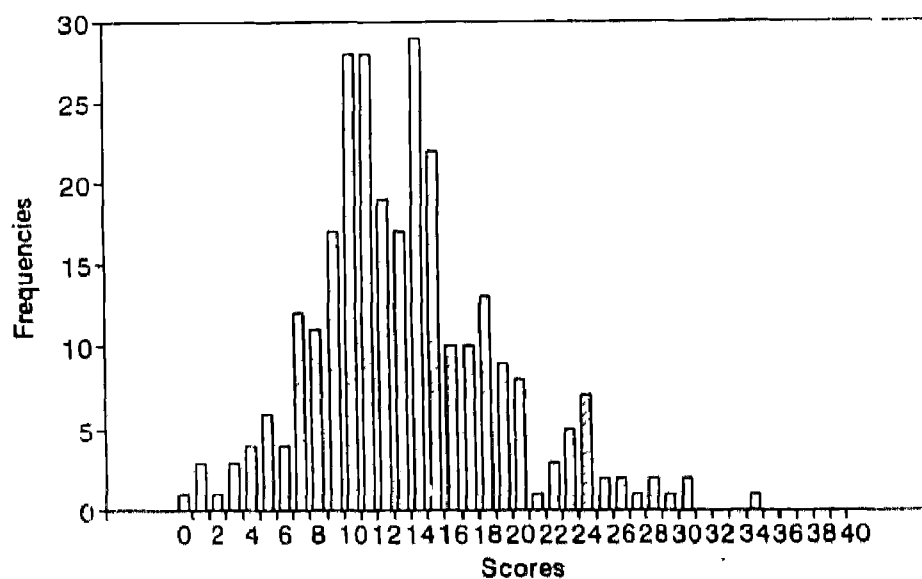
Score Frequency : Class-5 Students

Reading Comprehension : Dist : Ga japati

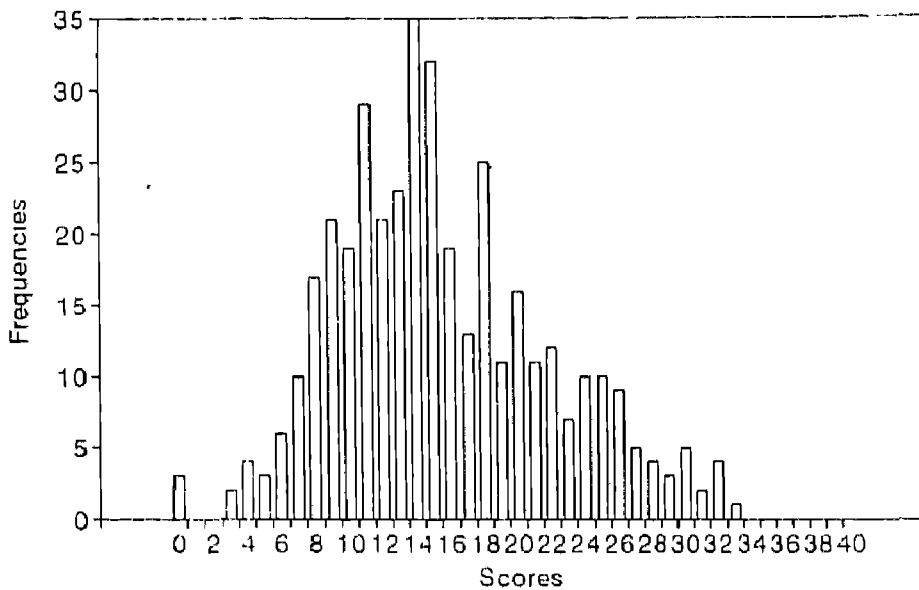


Score Frequency : Class-5 Students

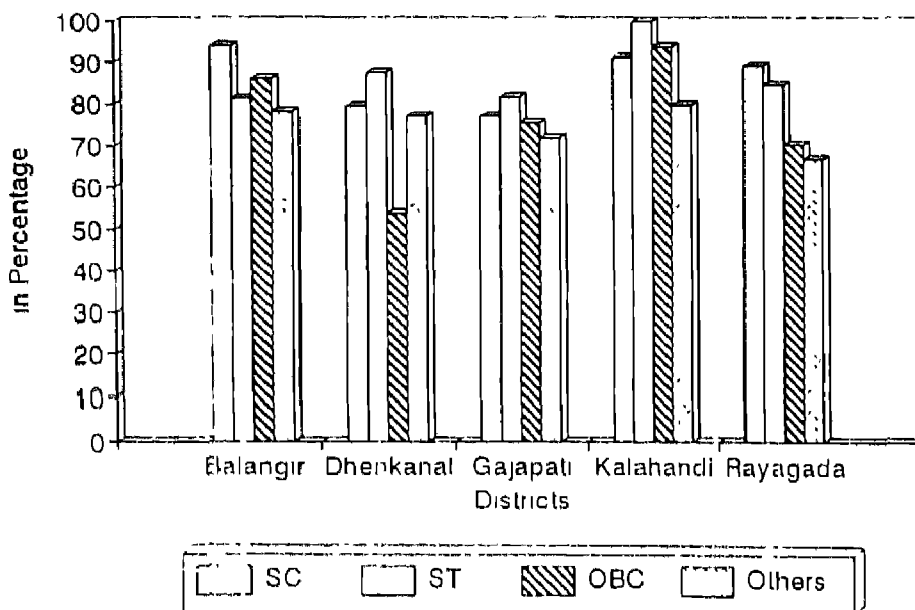
Reading Comprehension: Dist : Kalahandi



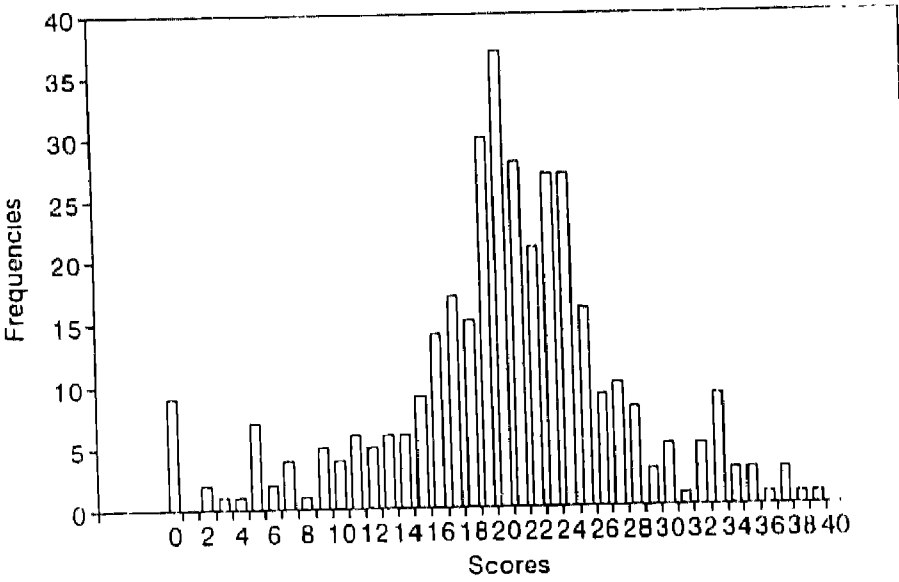
Score Frequency : Class-5 Students *Reading Comprehension : Dist : Rayagada*



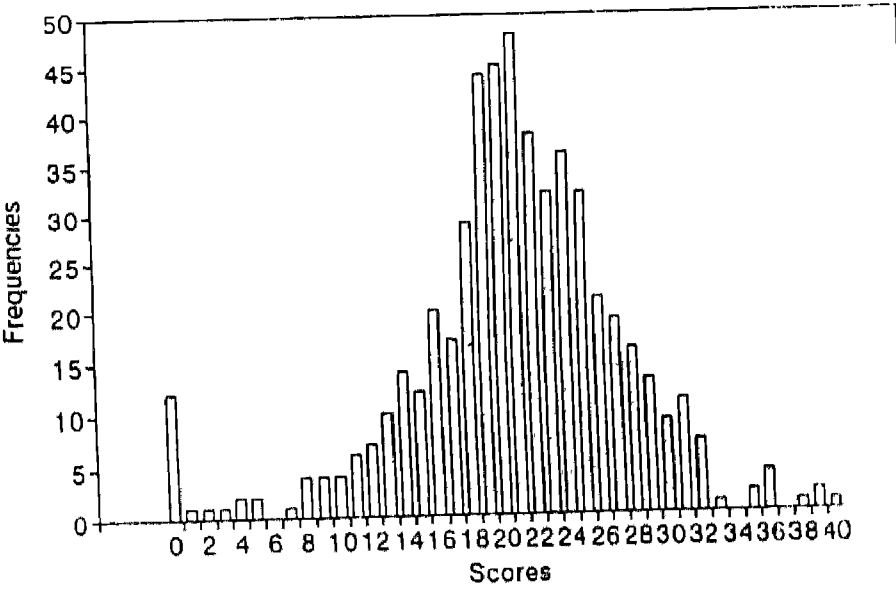
Achievement Level of Class-5 Students *in Mathematics Not Achieving MLL*



Score Frequency : Class-5 Students
Word Meaning : District : Balangir

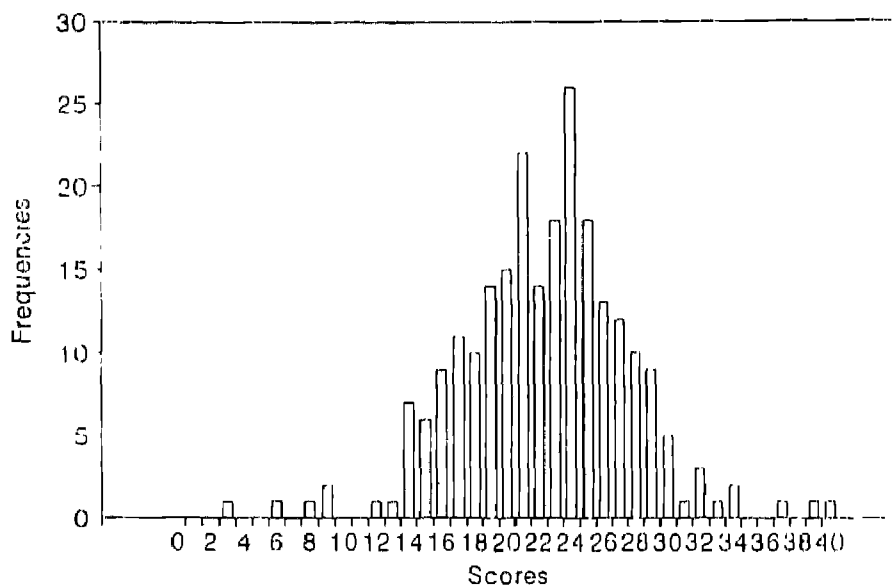


Score Frequency : Class-5 Students
Word Meaning : District : Dhenkanal



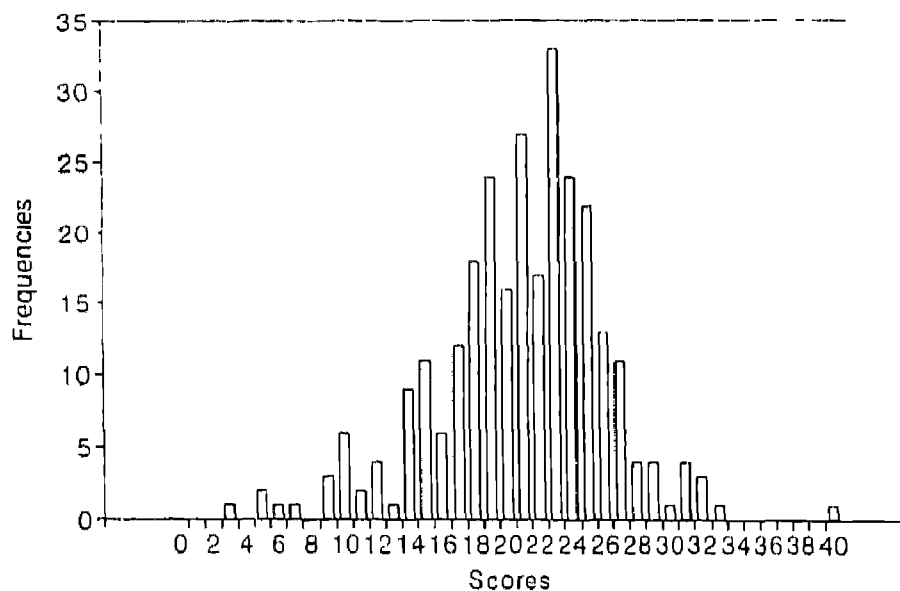
Score Frequency : Class-5 Students

Word Meaning : Dist : Ga japati

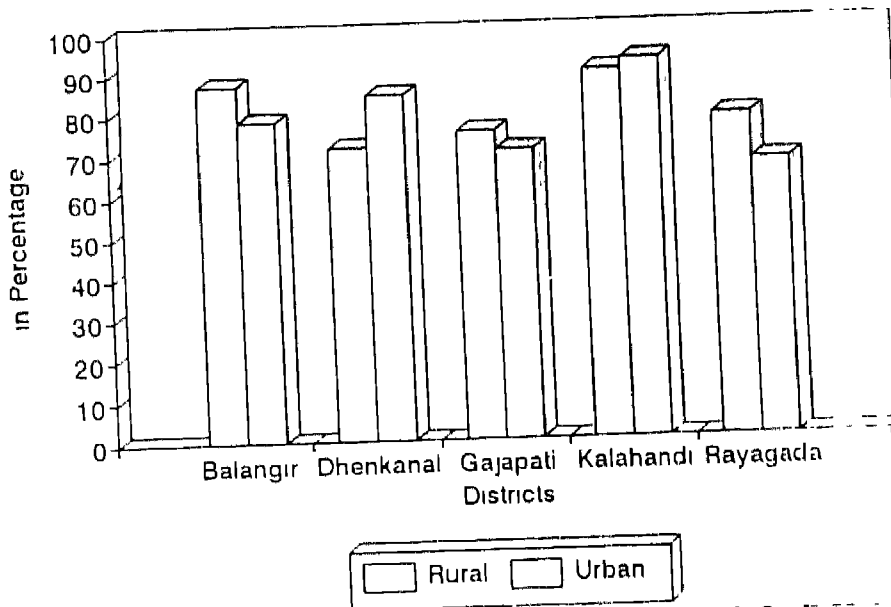


Score Frequency : Class-5 Students

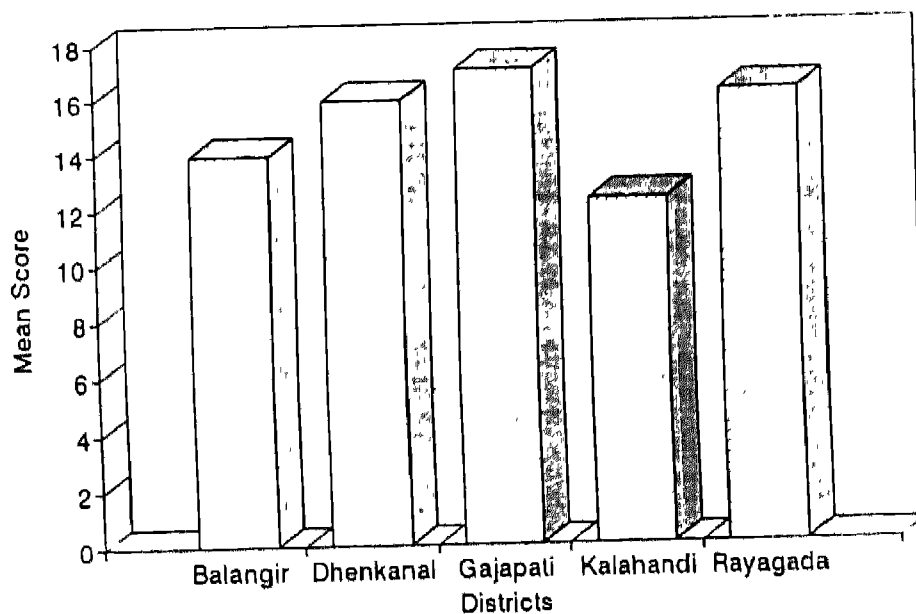
Word Meaning : Dist : Kalahandi



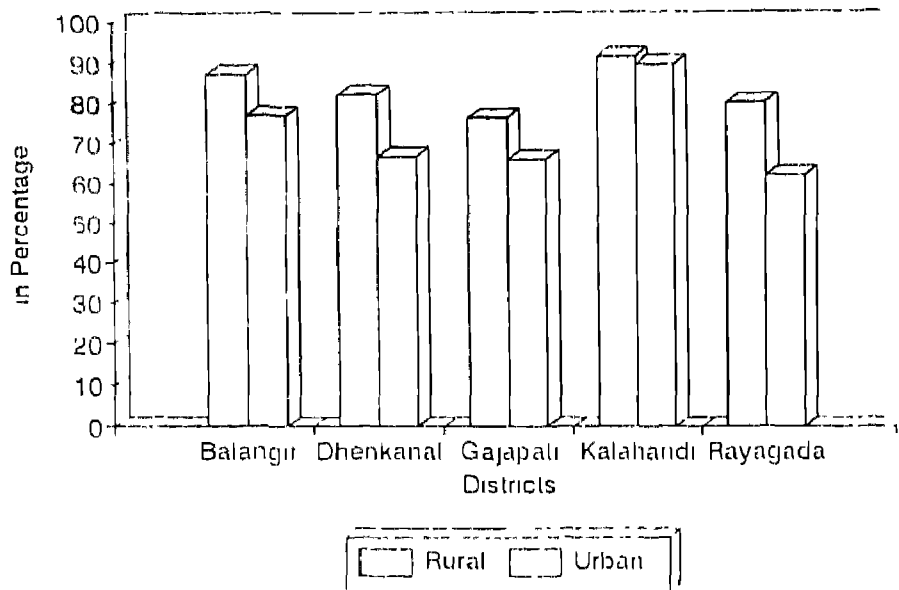
Class-5 Students Not Achieving MLL In Mathematics (Genderwise)



Mean Achievement of Class-5 Students In Mathematics



Class-5 Students Not Achieving MLL In Mathematics (Locationwise)



Score Frequency : Class-5 Students Word Meaning : Dist : Rayagada

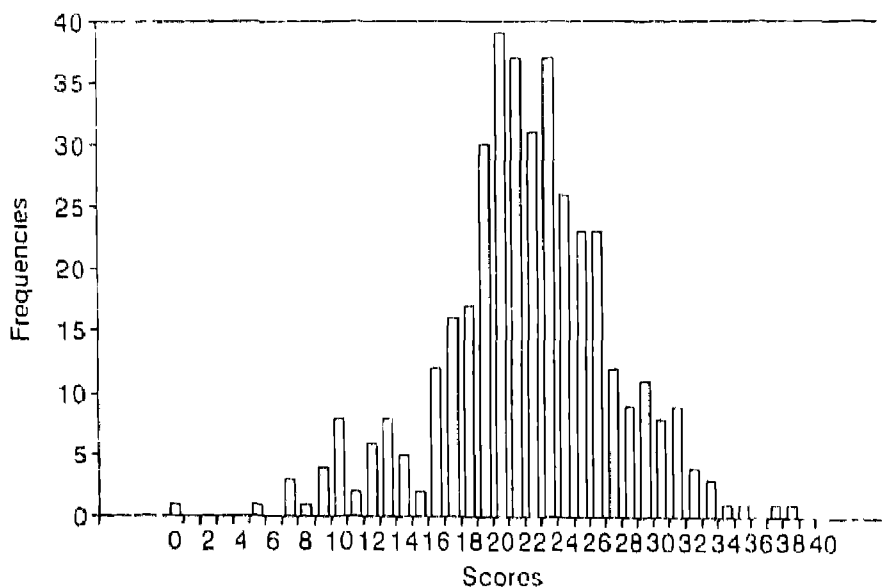


Table 3.5.22

Achievement of Class-5 Students In Mathematics (Genderwise)

Districts	Boys		Girls		Total	
	Mean	SD	Mean	SD	Mean	SD
Balangir	13.84	5.79	14.05	6.61	13.90	6.03
Dhenkanal	16.61	6.94	15.02	5.51	15.89	5.83 *
Gajapati	16.49	6.03	18.16	7.22	17.52	6.23 *
Kalahandi	12.01	4.95	12.86	4.95	12.41	3.31
Rayagada	15.88	6.46	16.80	5.73	15.89	4.28

* Significant Differences

performed better than their counterparts in the rural schools. These results go on to strengthen the common notion regarding greater effectiveness of urban schools. However such a study may be replicated with larger sample size than the one studied in this work.

Table 3.5.23

Mean Achievement of Class-5 Students in Mathematics (Locationwise)

Districts	Rural		Urban	
	Mean	SD	Mean	SD
Balangir	13.75	5.48	14.34	7.45
Dhenkanal	15.23	5.56	17.49	7.81 *
Gajapati	16.54	6.66	18.48	5.51 *
Kalahandi	12.10	4.89	13.57	5.22 *
Rayagada	15.64	6.12	18.45	6.30 *

* Significant differences

Castewise Difference in Mathematics Achievement

The mean scores & standard deviation in Mathematics of the four groups differentiated on the basis of caste are presented in Table 3.5.24. The performance of children belonging to the general or "other" castes is demonstrably superior to other groups in every district. The significant intergroup difference are between

1. SC and others in all the districts.
2. SC/ST and others in all districts except Balangir.
3. SC/ST and OBC in Dhenkanal, Gajapati & Rayagada.
4. OBC and others in Rayagada.

Such differences might be the reflections of the disparity in their relative backwardness which requires

probing and quick remediation so as to make equity and social justice as an inalienable component of quality education.

Table 3.5.24
Mean Achievement of Class - 5 Students in Mathematics (Castewise)

Districts	SC		ST		OBC		Others	
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D
Balangir	12.63	4.87	14.27	5.74	13.65	5.61	14.87	7.22
Dhenkanal	14.61	5.00	15.61	5.81	16.07	8.58	16.06	6.49
Gajapati	16.54	5.65	14.31	6.10	17.03	5.37	17.40	6.81
Kalahandi	11.61	4.97	11.23	3.49	12.94	4.66	13.68	5.73
Rayagada	14.09	4.77	14.65	5.35	16.88	6.72	18.22	6.69

Genderwise Levels of Mathematics Achievement

Table 3.5.25 depicts the genderwise distribution of different levels of attainment in mathematics by class 5 students. As in case language achievement, a large percent of learners are below the MLL acquisition level. Maximum number of non-achievers are in Kalahandi (more than 90 percent). Mastery level is reached by quite a few percentage maximum being the girls of Gajapati district (11.11 percent). Except in Dhenkanal in all other districts percentage of girls attaining is more than the boys which

Table 3.5.25

Class-5 Students Achievement in Mathematics (Genderwise) of Different Levels

Levels	Balangir			Dhenkanal			Gajapati			Kalahandi			Rayagada		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Zero	1.96	2.80	2.21	4.21	1.23	2.84	1.22	0.00	0.85	3.78	4.12	3.90	0.37	0.00	0.25
Not Achieving MLL	87.45	78.50	84.81	71.93	84.84	77.88	75.61	70.83	74.15	90.27	92.78	91.13	78.65	67.41	74.88
Achieving MLL	5.88	10.28	7.18	11.93	8.20	10.21	14.63	8.33	12.71	3.78	1.03	2.84	8.61	24.44	13.93
Approaching Mastery	3.14	5.61	3.87	8.07	4.10	6.24	4.88	9.72	6.36	2.16	1.03	1.77	8.24	3.70	6.72
Achieving Mastery	1.57	2.80	1.93	3.86	1.64	2.84	3.66	11.11	5.93	0.00	1.03	0.35	4.12	4.44	4.23

is an encouraging trend to reckon with at the time of planning for quality learning.

Locationwise Levels of Mathematics Achievement

In the rural-urban differentiation the achievement in mathematics Table 3.5.26 demonstrates slightly higher performance by students in the urban schools although by no means the picture is as simple. The percentage of children in urban schools of Balangir, Dhenkanal and Rayagada are higher than the rural schoolgoers in class 5 while in Gajapati district the position is just the reverse. But in levels of achieving MLL and approaching mastery urban students are in higher percentage than their rural counterparts.

Castewise Levels of Mathematics Achievement

Besides repeating the picture of high percentage of non-achievers, the castwise break up of the performance levels in mathematics (Table 3.5.27) do not exhibit any definite trend regarding the superiority of performance by any caste group. OBC groups in Dhenkanal, Gajapati and Rayagada shows slightly better performance over other groups in achieving MLL and approaching mastery. This group in Dhenkanal has the highest percentage (7.69%) of students in achieving mastery level than any other groups. The general caste (others group) group in Rayagada district demonstrates better performance in achieving the higher three levels of mathematics achievement.

Relationship between Language and Mathematics

Table 3.5.28 reveals the correlation coefficient between the scores on mathematics & language tests. The correlation coefficients have been calculated between the scores in mathematics test and the scores as components of the Language Achievement Test i.e. Word Meaning(Total) Antonym, Synonyms, Reading Comprehension (Total), factual detail, comprehension of inferences, comprehension of title/central idea and reading comprehension. Almost all,

Table 3.5.26**Percentage of Class-5 Students Achieving in Mathematics (Locallonwise) of Different Levels**

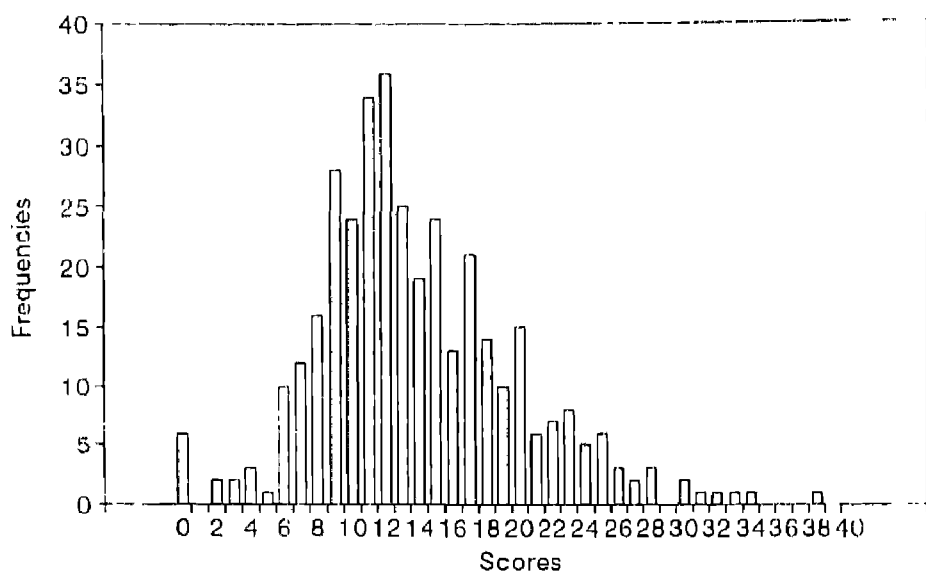
Levels	Balangir		Dhenkanal		Gajapati		Kalahandi		Rayagada	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Zero	1.11	5.43	3.44	1.32	1.11	0.00	4.10	2.63	0.31	0.00
Not Achieving MLL	87.41	77.17	82.28	66.89	76.67	66.07	91.39	89.47	80.19	62.16
Achieving MLL	7.41	6.52	8.73	13.91	10.56	19.64	2.46	5.26	10.06	18.92
Approaching Mastery	3.33	5.43	5.03	9.23	5.56	8.93	1.64	2.63	5.35	13.57
Achieving Mastery	0.74	5.43	0.53	8.62	6.11	5.36	0.41	0.00	4.09	5.41

Table 3.5.27

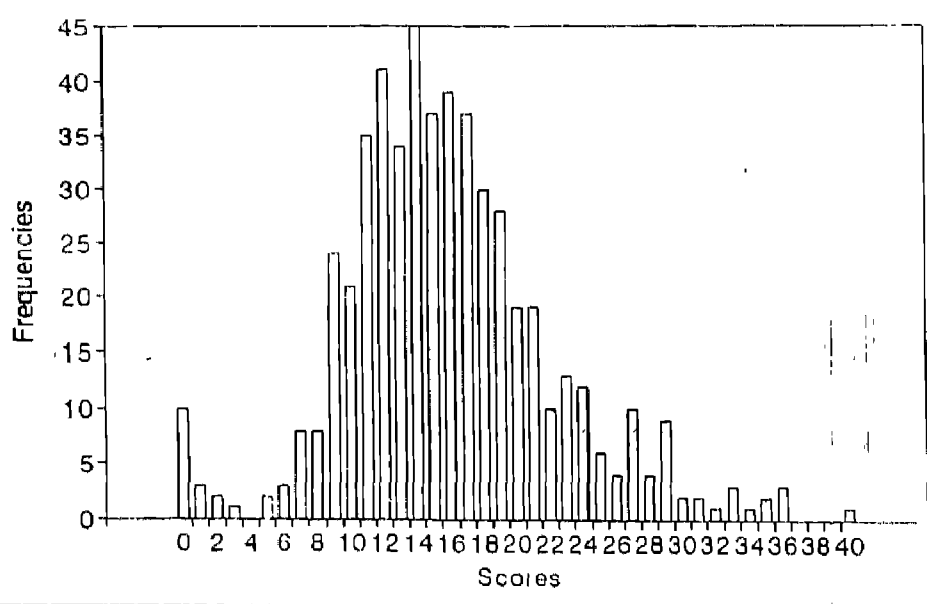
Percentage of Achievement of Class - 5 Students in Mathematics (Castewise) of Different Levels

Levels	Balangir					Dhenkanal					Gajapati					Kalahandi					Rayagada				
	SC	ST	OBC	Others	SC	ST	OBC	Others	SC	ST	OBC	Others	SC	ST	OBC	Others	SC	ST	OBC	Others	SC	ST	OBC	Others	
Zero	152	0.00	2.86	2.94	185	0.00	7.69	3.09	0.00	0.00	4.55	0.00	0.67	5.04	0.00	2.11	5.71	0.00	0.00	0.00	0.00	0.00	0.00	0.85	
Not Achieving MLL	93.94	81.48	86.43	78.43	79.63	87.80	53.85	77.43	77.42	81.82	75.76	72.00	91.37	100.00	93.68	80.00	89.25	84.25	70.59	66.95					
Achieving MLL	1.52	14.81	6.43	7.84	16.67	4.88	30.77	9.26	16.13	4.55	12.12	13.13	1.44	0.00	2.11	11.43	8.60	8.86	15.69	12.71					
Approaching Mastery	3.03	3.70	2.86	5.88	1.85	4.88	0.00	7.13	3.23	9.09	9.09	6.00	1.44	0.00	2.11	2.86	0.00	7.33	7.84	11.85					
Achieving Mastery	0.00	0.00	1.43	4.90	0.00	2.44	7.69	3.09	3.23	0.00	0.00	3.03	0.72	0.00	0.00	0.00	2.15	0.01	5.89	7.63					

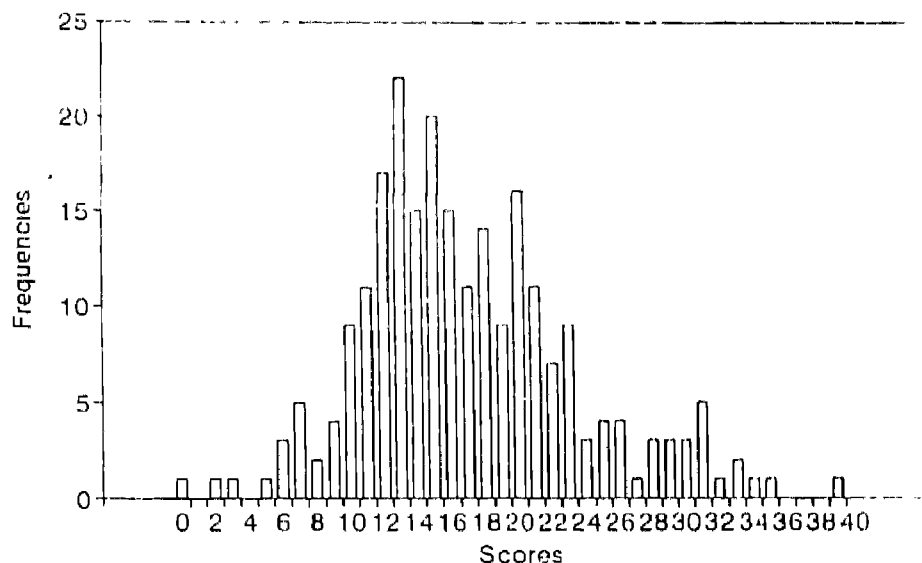
Score Frequency : Class-5 Students
Mathematics : Dist : Balangir



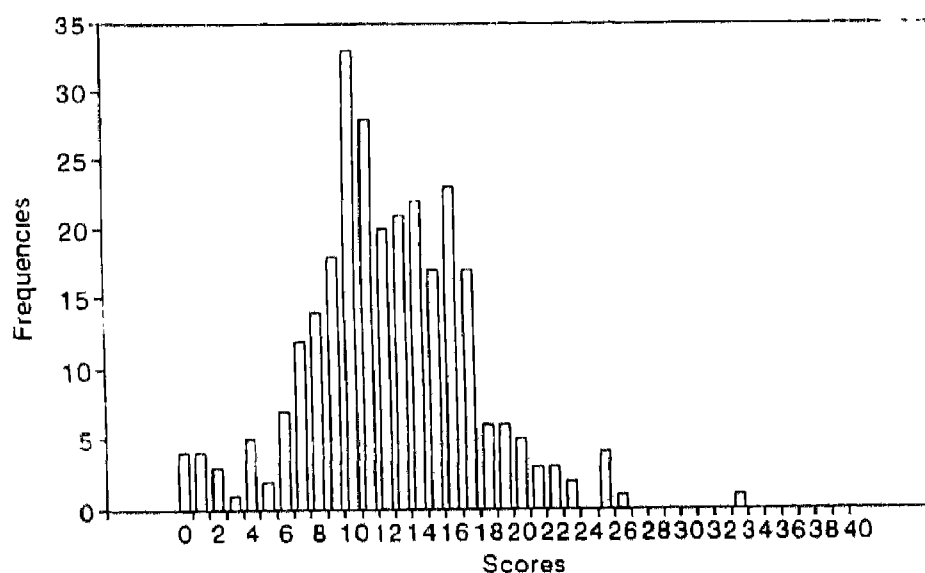
Score Frequency : Class-5 Students
Mathematics : Dist : Dhenkanal



Score Frequency : Class-5 Students
Mathematics : Dist : Gajapati



Score Frequency : Class-5 Students
Mathematics : Dist : Kalahandi



Score Frequency : Class-5 Students *Mathematics : Dist : Rayagada*

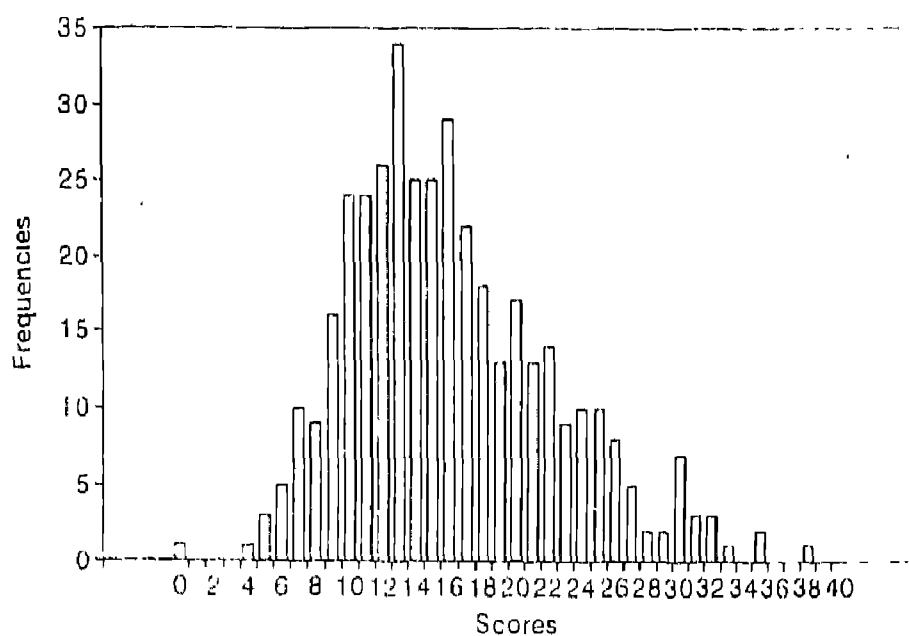


Table 3.5.28

Correlation between Mathematics and Language of Class 5 Students

Language Variable	Balangir	Dhenkanal	Gajapati	Kalahandi	Rayagada
Word Meaning Total (TOT1)	0.44 [*]	0.50 [*]	0.42 [*]	0.34 [*]	0.53 [*]
Word Meaning Antonyms (WMA)	0.13	0.27 [*]	-0.05	-0.01	-0.03
Word Meaning Synonyms (WMS)	0.33 [*]	0.45 [*]	0.33 [*]	0.24 [*]	0.38 [*]
Reading Comprehension Total (TOT2)	0.51 [*]	0.57 [*]	0.60 [*]	0.53 [*]	0.60 [*]
Reading Comprehension of Factual Detail (RCF)	0.31 [*]	0.30 [*]	0.34 [*]	0.29 [*]	0.18
Reading Comprehension of Inferences (RCI)	0.26 [*]	0.28 [*]	0.34 [*]	0.29 [*]	0.13
Reading Comprehension of Title/Central Idea (RCC)	0.24 [*]	0.20	0.24 [*]	0.25 [*]	0.08
Reading Comprehension (RCM)	0.11	0.16	0.05	0.21	0.01

* Significant at 0.1 level

except three, coefficients of correlations are positive. All the coefficients of correlation between mathematics with Word Meaning total, Reading Comprehension (Total) and word meaning synonyms are significantly high. Relationship between factual detail, comprehension of inferences and comprehension of central idea are significant. The three negative coefficients that are with Word Meaning Antonyms demonstrated in Gajapati, Kalahandi and Rayagada are too small hence neglected. Hence, mathematics strongly correlated with all components of language test except with Reading Comprehension of Central Idea and Reading comprehension with those the coefficient is extremely low. These findings regarding correlation between scores on Mathematics and different components of language as ascertained from the students of the five districts lead to the similarity in functioning of content and process of the two subjects. This may provide valuable pointers to the curriculum planners for making the contents more interrelated while making those more contextual.

In summary, the discussion on the characteristics and achievement patterns of the learners in class 5 of the districts broadly brings home a few important points. Poor enrolment of girls and children from socially disadvantaged sections, lack of basic learning materials, staggering number of below MLL achievers among other things poses serious threat for UEE in this region which has to be addressed while planning at the micro or macro levels.

CHAPTER IV

IMPLICATIONS FOR DPEP INTERVENTION

CHAPTER IV

Implication for DPEP Interventions

The findings of the present study as discussed in Chapter III are the outcomes of a systematic and indepth investigation into a set of variables, both 'malleable' and 'non-malleable', that are considered to have bearing on the school quality and learner achievement. The major objectives of the Baseline Assessment Study in the context of Orissa are : (i) to assess the state and status of primary schools; (ii) to measure the levels of learner attainment on the basis of gender, location and social groups; (iii) to identify and analyse the factors that contribute to learner achievement; (iv) to examine the influence of home-based and school-based factors on dropout phenomenon; and (v) to probe into the factors contributing to school effectiveness. Schools being the unit for data collection, the focus of analysis is primarily on school related variables which could be manipulated for achieving the short-term and long-term objectives of improving school quality and effectiveness.

The idea of having uniform priorities universally applicable to all the situations and circumstances no longer holds good. Such an approach is being increasingly replaced by policies and programmes which are area specific. District specific patterns have evolved from the study. Conclusions drawn from the study have, therefore, district specific implications with little scope for generalizations. Nevertheless, a few patterns have emerged which cut across the geographic boundaries of districts. In such cases, intended policy interventions could be equally applicable to the give DPEP districts, even to the entire state.

An effort has been made in the following paragraphs to clearly identify some of the intervention strategies to facilitate an improved level of student learning in primary stage of education. The proposed intervention strategies for improved systems effectiveness could be

clustered under following major levels :

1. System Level Intervention
2. School Level Intervention
3. Community Level Intervention

The intended interventions at different levels will, however, cut across the important aspects of the study such as teaching and teaching learning process in the classroom, teacher characteristics and teacher development, headteacher and supervision, and school facilities and school management.

1. System Level Intervention

Orissa still follows the policy of automatic promotion in primary schools which was introduced in India in the sixties, primarily to counter the costly phenomenon of dropout and stagnation. The phenomenon of dropping out accentuates with progression of grades. The policy of "all promotion" does not, in fact, reduce the magnitude of dropout. It leads, on the other hand, to erosion of quality of primary education measured in terms of the parameter of learner achievement. Again, the present study brings into focus the glaring step slide in the performance differences of grade II and grade V children.

Action Points

- The policy of automatic promotion irrespective of level of learner achievement should be discontinued in a phased manner.
- In order to improve the quality of learner performance in terms of ranged definition of mastery, the MLL intervention strategy should be introduced immediately in class during the academic year 1996-97, with a systematic and planned scheme of upscaling so that MLL strategy progressively covers grade I to V by AD 2000. The experience and insights accrued from the introduction of MLL strategy in Dhenkanal and

and pedagogic inputs. The preservice training programme needs to be redesigned.

- Highest priority needs to be accorded to in-service training. With the new institutional arrangements like BRCs, CRCs to come, the facilities for in-service training may be systematically planned.
- Classroom teaching practices have continued to remain orthodox and conventional. Interaction of learner with the teacher in classroom teaching has remained feeble and marginalized. Therefore, the focus of teaching-learning process should largely be on the learner.

School Level Intervention

Action Points :

- Headteacher is viewed essentially as instructional leader of the school. Measures to be taken to get the headteacher relieved from many of the administrative responsibilities outside the school. Headteachers have to be accountable for management of academic activities.
- The study has revealed the almost non-existent role of the headteacher with regard to supervision of classes and assessment teachers performance. This aspect needs to be strengthened and reinforced. The headteachers should provide necessary academic guidance to other teachers. The new role of headteachers be redefined with shifting focus from day-to-day ritualistic administration to academic supervision and leadership.
- It has been made evident from the study that planning remained a low priority instructional activity with our teachers. This situation needs to be rectified without further delay. With MLL and mastery Learning in focus, planning, teaching, testing, reteaching with remediation and enrichment

Angul districts on an R and D basis be capitalized on for statewide upscaling.

- Poverty of primary schools in the state is widespread and universal. Instances of building-less schools, schools with inadequate rooms, absence of toilet facilities and unsufficient instructional aids are not uncommon. However, OB scheme has, to some extent, ameliorated the plight of our schools. Two policy initiatives to be introduced : (i) reasonably sufficient provision facilities such as construction of school buildings wherever necessary, separate toilet facilities for boys and girls and provision of essential instructional materials; and (ii) ensuring optimum utilization of provisions created through investment in non-personnel items of expenditure. The specific action to be initiated at the system level is to link the provision of instructional materials and teaching aids with planning of inservice training programmes to use them. DIETs have to accordingly draw up plans for in-service training for primary school teachers.
- With the adoption of NPE and POA (1986 and 1992) one of the significant developments that has taken place is the structural and curricular uniformity. Primary school curriculum has been redesigned and reoriented. In this context, the minimum academic qualifications prescribed to become a primary school teacher needs re-examination. The minimum qualification for entry into primary teacher training institutions be raised to +2. In the teacher allocation policies, these teachers should be given priority to higher grades of primary classes.
- It is widely complained that the primary teacher training curriculum has neither the breadth nor the depth. It is very weak in its practical

and formative evaluation should be the primary and unavoidable concern of teachers. Inservice teacher training programme on MLL, Joyful Learning teachers improvement to innovative should be planned and capacity building at different levels be emphasised. The zone of resistance to new ideas and practices surrounding our teachers is to be systematically knocked down through exposing them to new ways of conducting training programmes.

- The number of women teachers is relatively small in all the DPEP districts. More number of women teachers be appointed and their services could be utilized to rope in non-enrolled children and retaining those who are enrolled. What is needed a large number of teachers from SC and ST communities.
- Time management is of over-riding importance in schools. Learning outcome is a function of effective time allocation. Teachers and headteachers have to ensure efficient time allocation on prioritized activities.

Community Level Intervention

- People have shown an urge to participate in all that happens around them affecting their life and living. The 73rd and 74th Amendments to the Constitution have opened up new possibilities. Planning has become "bottom-up" rather than "top-down." Therefore, networking of VACs, PTAs and MTAs with schools needs to be extended and consolidated.
- Primary schools are found to have entirely subsisted on government funds. This dependency syndrome robs the school and school actors, namely, teachers of the initiative to mobilise

for additional resources in order to ward off the financial crunch. Efforts must be made by schools and the community to raise funds to make schools effective. Thus, a feeling of owning the school on the part of the community will accelerate the process of its greater and genuine participation in the affairs of the school.

REFERENCES

- Anderson, L.W.(Ed)(1984). Time and school learning. Beckenham : Croom Helm.
- Coombs, Philip H.(1986). The world crisis in education : A view from the eighties. New York : Oxford University.
- Department of Education (1990). Towards an enlightened & humane society : Review of NPE, 1986. Department of Education, Government of India, New Delhi, MHRD.
- Downey, et al. (1994). The quality education challenge. California : Corwin Press.
- Govinda, R. & Varghese, N.V. (1992). Quality of primary education : An emirical study. Journal of Educational Planning and Administration, 6 (1), 17-35.
- Jangira, N.K., & Ahuja, A.(1995).Learning achievement of children at primary level : A baseline assessment study in the four districts of Haryana. New Delhi : NCERT.
- Khandekar et al.(1995).Schooling and cognitive achievement of children in Morocco : Can the Government improve outcomes ? World Bank Discussion Papers, Washington.
- Lockheed, M.E., & Verspoor, A.M.(1991).Improving primary education in developing countries. New York : Oxford University Pres.
- Nagpal, S. (1995). Learning achievement of primary school children in reading and mathematics. New Delhi: NCERT
- Naik, J.P. (1977). Some perspectives of non-formal education. Bombay: Allied.
- Naik, J. P. (1975). Elementary education in India: A promise to keep. Bombay : Allied.
- Sewell, W.H.(Ed) (1976). Schooling and achievement in American Society. New York : Academic Press.
- UNESCO (1994). Education for all summit of ministers of nine high- populous countries : Final report : New Delhi: UNESCO
- Unicef (1994). The rights to be a child. New Delhi: Unicef.
- Varghese, N.V.(1994). School quality and student learning : A study of primary schooling in Kerala. New Delhi: NCERT.

APPENDIX I

PROJECT TEAM FOR DATA COLLECTION

BALANGIR

Principal Investigator	1. Dr. S. L. Jena
Field Supervisor	1. Sri S.P.Patel 2. Sri P. K. Mishra 3. Sri N.M.Parichha
Field Investigators	1. Sri N.N.Panigrahi 2. Sri M.K.Mishra 3. Sri P.K.Tripathy 4. Sri H.S.Panda 5. Smt. N. Kar 6. Smt. K.Ambika Nair 7. Sri P. Udgata 8. Sri S.K.Bishi 9. Sri J.K.Naik 10. Sri J. Pradhan 11. Sri S.K.Behera 12. Sri A. Rana

DHENKANAL

Principal Investigator	1. Sri B. K. Patnaik
Field Supervisors	1. Sri P.K.Samantaray 2. Sri B.N.Sahu 3. Sri B. K. Mohanty
Field Investigators	1. Smt. S. Patnaik 2. Smt. S. Jena 3. Sri B.C.Swain 4. Smt. S.R.Behera 5. Sri B.K.Sahu 6. Smt. B.L.Panda 7. Sri P.K.Nayak 8. Smt. I. Bhutia 9. Sri G.S.Nanda

10. Sri K.R.Nayak
11. Sri P. Nayak
12. Sri S. Tripathy

GAJAPATI

- | | |
|------------------------|--|
| Principal Investigator | 1. Dr. D. Brahma |
| Field Supervisors | 1. Sri K.C.Nayak
2. Sri S.N.Mohapatra
3. Sri H.N.Mohapatra |
| Field Investigators | 1. Smt. K.K.Panda
2. Smt. P. Sahu
3. Sri S.P.Patnaik
4. Sri T. Padhy
5. Sri P. Panda
6. Sri L. Khadagara
7. Sri P.C.Pradhan
8. Sri T.P.Panda
9. Sri L.K.Padhi
10. Sri S. Panigrahi
11. Sri M.K.Panigrahi
12. Sri R.P.Behera |

KALAHANDI

- | | |
|------------------------|--|
| Principal Investigator | 1. Dr. N. K. Mishra |
| Field Supervisors | 1. Sri A. K. Pattnaik
2. Sri T.K.Mishra
3. Sri L.M.Mund |
| Field Investigators | 1. Sri R.N.Das
2. Sri N.Senapati
3. Sri P.K.Patra
4. Sri K.C.Pradhan
5. Sri U.K.Sahu
6. Sri D. Harpal
7. Sri F.Mahananda
8. Sri F.C.Meher
9. Sri S.S.Panda |

10. Sri H.Bhol
11. Sri S.K.Mohanty
12. Sri S.C.Mohapatra
13. Sri H.Mahananda
14. Sri P. K. Sahu

RAYAGADA

Principal Investigator

1. Dr. B.C.Mohapatra

Field Supervisors

1. Sri Shyamaghana Gauda
2. Sri Khalli Nayak
3. Sri Kartikeswar Behura

Field Investigators

1. Sri Om Mishra
2. Sri Mahendra Rout
3. Sri Pankaj sahu
4. Sri A.K.Sarangi
5. Sri S. Das
6. Sri J.K.Mishra
7. Sri D. Badatya
8. Sri P.Koteswar Rao
9. Sri A.K.Biswas
10. Sri P.K. Sahu
11. Sri R.K.Mishra
12. Sri K.M.Patnaik

APPENDIX II

LIST OF SAMPLE SCHOOLS

BALANGIR

Saintala
Block

1. Belgaon Govt. Primary School
2. Kusumkhal Govt. Primary School
3. Narabahali Govt. Primary School
4. Babulba Govt. Primary School
5. Badamunda Govt. Primary School
6. Rengali Kuikeda Govt. Primary School
7. Kharselbarji Govt. Primary School
8. Limpada Govt. Primary School
9. Chuladhora Govt. Primary School
10. Tentuliapada Primary School
11. Kudaisingha Govt. Primary School
12. Siba Prasad Primary School
13. Piprut Primary School

Puintala
Block

1. Dumerbahal Govt. Primary School
2. Kureibana Primary School
3. Siletpada Primary School
4. Belpahali Primary School
5. Benubahal Primary School
6. Jhar Balangir Primary School
7. Pathala Primary School
8. Dumerpali Primary School
9. Kanakaria Primary School
10. Sankandha Pali Primary School
11. Pipirda Primary School
12. Jampali Primary School
13. Pankel Bahal Primary School

Patnagarh
Block

1. Banai Munda Sevashram
2. Khuntasamalei Govt. UP School
3. Gargard Chhapar Primary School
4. Glumer Primary School
5. Dabkani Primary school
6. Kuturla Primary school

Contd.

7. Fatamunda Primary school
8. Siddkimunda Primary School
9. Goalmora Primary School
10. Dumerpadar Primary School
11. Bindan Pathar Primary School
12. Bandhanbhadi Primary School
13. Behera Bandha Primary School
14. Nehena Bandha Primary School
15. Turlamal Primary School
16. Lamkar Primary School

Kantabanjhi
NAC

1. Kantabanjhi Boys' Primary School
2. Ghantasahani Primary School

Titilagarh
NAC

1. Patnagarh Boys' Primary School

DHENKANAL.

Kankadahad
Block

1. Dolopasi Primary School
2. Gadapalasuni Primary School
3. Dolia Primary School
4. Kirtanpur Primary School
5. Taradanali Primary School
6. Tarajanga Primary School
7. Ghuturgaon Primary School
8. Dhabalipathar Primary School
9. Biribalei Primary School
10. Bramharia Primary School
11. Kairatagar Primary School
12. Kantapal Colony-4 Primary School
13. Birasal Primary School

Hindol Block

1. Banamalipur Primary School
2. Jharabandha Primary School
3. Khanditiri Primary School
4. Sinkol Primary School
5. Tarkabeda Primary School
6. Dandiri Primary School
7. Harihat Primary School
8. Nuataila Primary School

Contd.

9. Sanamunda Primary School
10. Nuapatna Primary School
11. Bhagalpur Primary School
12. Gurilo Primary School
13. Karanda Primary School
14. Bangu Primary School
15. Jharbeda Primary School
16. Bhakarpur Primary School
17. Hatura Primary School
18. Kukuta Primary School
19. Shyam Sunderpur Primary School

Kamakhyanagar NAC 1. Alatuma Primary School
 2. Model Primary School

Bhubana NAC 1. Talankaberini Primary School

GAJAPATI

- R. Udayagiri 1. Sundruba Primary Schol
 2. R.Udayagir Primary School
 3. Mangarajpur Primary School
 4. Ramgiri Primary School
 5. Chelligada Primary School
 6. Parisala Primary School.
 7. Bastriguda Primary School
 8. Christian Street Primary School, Ramgiri
 9. Arsi Sali Primary School
 10. Rumunda Primary School
 11. Hatapada Primary School
 12. Tarapada Primary School
 13. S.Gudisahi Primary School
 14. K.M.Bhaliasahi Primary School
 15. Padmapur Primary School
 16. P.Sailong Primary School
 17. N. Sailong Primary School

Paralakhemindi Block 1. Saura Routapur Primary School
 2. Vinala Primary School
 3. Bada Hamasa Primary School

Contd.

4. Mandal Devi Primary School
5. Rajpur Primary School
6. Kaithada Primary School
7. New Kerandi Primary School
8. Dr. Banjar Primary School
9. Deviti Primary School
10. Oriya Boys Primary school, Gurandi
11. Uppalada Primary school
12. Oriya Primary school, Garabandh
13. Haltapada Primary school
14. Kathalkatha Primary School

- Kashinagar NAC
1. New Varanasi Primary School
 2. Kashinagar Boys Primary School
 3. Brahmana Street Primary School
 4. Block Colony Primary School

KALAHANDI

Lanjigarh
Block

1. Dangargaon Primary School
2. Badibahal Primary School
3. Siudhibahal Primary School
4. Jagannathpur Primary School
5. Talbora Primary School
6. Raghunathpur Primary School
7. Pokharibandha Primary School
8. Sitapur Primary School
9. Bilatopada Primary School
10. Block Colony Primary School
11. Pengswar Primary School

Koksara Block

1. Gadaramal Primary School
2. Chitamunda Primary School
3. Bijmora Primary School
4. Nuapada Primary School
5. Khuntia Primary School
6. Mohima Primary School
7. Temra Primary School
8. Gatsandh Primary School
9. Sunamal Primary School
10. Majhursahi Primary School

Contd.

11. Kandapara Primary School

Bhawanipatna
Block

1. Turpi Primary School
2. Gurjang Primary School
3. Pandigaon Primary School
4. Bandhapada Primary School
5. Pastipada Primary School
6. Dughripadar Primary School
7. Sardhapur Primary School
8. Kamathana Primary School
9. Attanguda Primary School
10. Kulerguda Primary School
11. Gananathpur Primary School
12. Dungiparga Primary School
13. Kalan Primary School
14. Karla Soda Primary School
15. Kenduguda Primary School
16. Dakibandal Primary School
17. Dumberbahal Primary School
18. Goipeta Primary School

Kesinga NAC

1. Sanpada Primary School

Junagarah
NAC

1. Centre Primary School, Junagarh

RAYAGADA

Muniguda
Block

1. Merring Primary School
2. S.N.Dey Primary School
3. Gatiguda Primary School
4. Dangibadi Primary School
5. Kumudabali Primary School
6. Deokupali Primary School
7. Jophi Primary School, Ambadola
8. Station Kumudabali Primary School
9. Ichhapur Primary School
10. Harijan Street Primary School

Contd.

- Gudari Block
1. Dambapendili Primary School
 2. Muliput Primary School
 3. Baliguda Primary School
 4. Jalanidhi Primary School
 5. Salini Primary School
 6. Depaguda Primary School
 7. Asoda Primary School
 8. Badiguda Primary School
 9. Lokanath Primary School

- Kolanara Block
1. Madanpur Primary School
 2. Manjholi Primary School
 3. Badachampia Primary School
 4. Hatikhamba Primary School
 5. Shevashram Primary School
 6. Deopur Primary School
 7. Bhujabal Primary School
 8. Brahmana Street Primary School
 9. Dakuluguda Primary School
 10. Imphal Primary School
 11. D.P.Camp Primary School, Therunalli
 12. Satipur Primary School
 13. Kartikaguda Primary School

- Gunupur NAC
1. Kartika Street Primary School
 2. SAP Bidyapitha Primary School
 3. Matia Street Primary School

- Gudari NAC
1. Block Colony Primary School
 2. Ex-Board Primary School, Gudari

Table 3.3.1

Percentage Distribution of Dropouts (Genderwise)

Districts	Boys	Girls	Total
Balangir	68 52.31	62 47.69	130
Dhenkanal	50 64.94	27 35.06	77
Gajapati	20 58.82	14 41.18	34
Kalahandi	47 59.49	32 40.51	79
Rayagada	32 41.03	46 58.97	78

Table 3.3.2

Percentage Distribution of Dropouts (Locationwise)

Districts	Rural	Urban	Total
Balangir	121 93.07	09 6.93	130
Dhenkanal	75 97.40	02 2.60	77
Gajapati	29 85.29	05 14.71	34
Kalahandi	77 97.47	02 2.53	79
Rayagada	69 88.46	09 11.54	78